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Original Communications.

THERMOMETRY.

By CHARLES E. BUCKINGHAM, M.D., Boston.

IT occurred to me that many of the statements in the treatise of Wunderlich, published by the Sydenham Society, did not agree with observations upon my own patients. The range of temperature with them, and also with persons apparently in good health, was much larger than he allowed. It seemed as if in my own records, taken early in the morning, *before food*, a much greater depression was observed than anything shown in his records. Temperature, so far as I can find out, is usually recorded *after* the morning meal, at noon, and *after* the evening meal. During the month of November, I made the following personal observations: There were six observations in the day. As a rule, the first was while dressing in the morning; the second was immediately after breakfast; the third just before, the fourth just after dinner; the fifth and sixth before and after supper. The instrument used was Casella's 14,543. It was placed under the tongue, and retained there not less than six (6) minutes. Anything out of the regular course was noticed in making the record, which reads as follows. (For table, see next page.)

On examining these observations, one is much surprised to see that there is a variation, between the lowest and highest points reached, of four and four-tenths (4.40) degrees, or from 95° to 99.4°. Take, however, the record made after eating, and the variation is only two and two-tenths degrees (2.20); while taking the record made before eating, sometimes when very much fatigued, and sometimes not at all so, and the variation is four and two-tenths (4.20) degrees, or from 95° to 99.2°.

The use of a hot bath in the morning is spoken of in the record. Its effect on the morning of the 26th is well worth noticing, raising the temperature of the body, as it did, a whole degree, and this effect increased another whole degree by the breakfast.

The table, it seems to me, it is well worth the while of medical men to look at. It may lead to more care in fixing hours for the use of the instrument; and if the experience of others should give similar results, the anxiety caused by unexplained variations might be diminished.

November.	Before Breakfast.	After Breakfast.	Before Dinner.	After Dinner.	Before Supper.	After Supper.	Remarks.
1	97.8°	98.8°	—	98°	99°	99°	
2	96.8°	97.8°	97.2°	98.2°	—	99.2°	
3	97.8°	98.2°	98.2°	—	—	99°	
4	97.6°	98.4°	—	98.2°	—	99.2°	
5	96.8°	98.4°	—	98°	—	98°	Hot bath before dressing.
6	96.8°	98.4°	97°	97.6°	—	97.8°	
7	98°	99°	98.4°	98.4°	98.8°	98.8°	From and after this date, glass was warmed in hand before putting it in mouth.
8	96.8°	98.6°	97.4°	98°	—	98°	Hot bath before dressing.
9	98°	98°	98°	97.8°	98.6°	99.4°	Slight sore throat.
10	98°	99.2°	98°	98.4°	97.6°	99°	" " "
11	98°	98°	97.4°	97.6°	99°	99°	Sore throat.
12	96.6°	99°	—	—	98.2°	99.2°	Out before daylight. Instrumental labor.
13	97.8°	98.8°	97.4°	—	—	98°	Hot bath before dressing.
14	95.6°	98.4°	95°	97.4°	—	99°	Cold, windy day. Took long ride in wind. Took tea at dinner. No wine.
15	96.4°	98.2°	96.4°	97.2°	98°	98°	Neither tea nor wine at dinner.
16	96.4°	98.8°	97.6°	98.8°	97.6°	98.4°	Out from 12¾ to 7¼, A.M. Slight rheumatic pain in left hand for past twenty-four hours. Tea for dinner.
17	97.2°	98.4°	96.8°	98°	96°	98.6°	Whiskey at dinner.
18	97.8°	99°	98.2°	99°	98°	98.6°	
19	97.4°	98.8°	—	98°	97.4°	99°	
20	97.4°	97,4°	98°	98°	98.2°	99°	
21	97.8°	98.4°	98°	98.4°	—	98.8°	
22	96.8°	98.8°	98°	98°	98°	98°	
23	97·4°	98.6°	97.6°	98°	99°.2	99°	
24	97.6°	98.6°	98.4°	98.6°	99.2°	99.4°	
25	97.8°	98.8°	96.4°	98.2°	96.8°	98°	Out soon after 11, P.M., 24th. Returned at 7, A.M. Little sleep; broken.
26	96.2° 97.2°	98.2°	96.4°	98°	98.4°	98.6°	Up from 3.40, A.M. Lowest point on this line taken after reaching home.
27	96.4°	98°	—	—	95.4°	98.6°	The other after a hot bath.
28	96°	—	97.4°	—	98.4°	98.4°	
29	98.4°	97.2°	98.2°	99°	99.2°	99.4°	
30	97.8°	98.4°	97.8°	—	98.2°	97.8°	

PEPSIN.

By R. T. Edes, M.D.

Read before the Dorchester Medical Club.

Pepsin is the peculiar ferment present in the gastric juice. As a physiological experiment, the juice itself can be used for artificial digestion, but obviously cannot be obtained in sufficient quantity for therapeutic application. Various methods have been employed to obtain the active principle in a form suitable for medical use. Boudault's, Morson's, Beale's and various others have been prepared in Europe, but it is sufficient to mention only the three first, as the others have not come into use here. "The pepsin of commerce is either mucus of the stomach scraped off and dried, or a mixture of pepsin, peptones and starch, containing a little lactic acid."* Beale's corresponds to the first part of the description, Boudault's and Morson's to the second. By far the larger part of these consists of starch, as a diluent is necessary to enable them to be dispensed.

The process of Mr. Scheffer, of Louisville, consists in macerating the chopped mucous membrane of the hog's stomach in acidulated water, and, after allowing the mucus to settle, precipitating the pepsin by a saturated solution of common salt.

The precipitate is dried upon a cloth, its digestive strength estimated by experiment, and then mixed with sugar of milk in such proportion that 10 grains dissolves 120 grains of hard-boiled white of egg in four to six hours under the appropriate conditions.

Although this experiment cannot be considered as exactly representing the amount of work done in the stomach, yet it furnishes the only available means of comparison between different preparations. I have examined, in this way, Boudault's neutral, Morson's, Procter's, Hawley's, and the "Aromatic Liquid Pepsin," which has been extensively advertised within a few weeks. Procter's and Hawley's, the first of which is avowedly, and the second probably, made by Scheffer's process, were exceedingly efficient, leaving but a small residue, and that pulpy and friable. The action of Morson's and of Boudault's was very slight, in fact hardly perceptible, and the same is true of the "Aromatic Liquid Pepsin."† These experiments were performed only twice with Boudault's and Morson's, with the same result, since there seems to be no reason for using imported preparations, which are more expensive, less elegant, and vastly less efficient than those which we have furnished us here. As regards the "Aromatic Liquid," the experiment was repeated twice more with a similar result.

I did not succeed in making Procter's, which was the preparation used in subsequent experiments, dissolve the full amount of albumen, but it may easily be imagined that the variation in the amount of

* Gmelin's Handbook of Chemistry. 1870.

† Since writing this sentence, I have noticed in the Practitioner an examination of three English preparations, Savory & Moore's, Morson's pepsina porci, and Squire's. The digestive power of all was extremely slight.

heat, in the degree of comminution, and especially in the amount of stirring and of shaking, might have a great influence on the quantitative result. In each experiment, however, the different preparations were treated in a precisely similar manner in these respects. At first, the residue was weighed to determine the amount of albumen dissolved; but, owing to the differences in the amount of water absorbed, and the difficulty in properly drying the residue, especially when partly digested, I think that the appearance of the fragments of albumen is, for practical purposes, quite as reliable.

It is very well known that many manufacturers, being aware that sundry other drugs have their uses in the treatment of dyspepsia, but forgetting that, in physiology and therapeutics, two and two do not always make four, have combined pepsin with any three or four of these drugs in the much advertised and, I fear, much used compound aromatic fragrant tonic and invigorating elixirs of pepsin, bismuth, strychnia, quinia, cod-liver oil, lacto-phosphate of lime, and Liebig's extract of beef.

Mr. Scheffer, whose experiments upon pepsin have extended much beyond the preparation of the most reliable form of this useful agent, has shown not only that the pepsin is usually precipitated by the alkalinity of the fluid used to hold the bismuth in solution, but that the bismuth itself precipitates the pepsin. The action of an elixir of bismuth, strychnia and pepsin is shown in this bottle, which may be called a visible dyspepsia, the pieces of albumen being shrunken, dark and tough, without the faintest trace of solution. I also tried a granular effervescent preparation of the same kind, with absolutely no digestion. Finally, I added the ordinary subnitrate of bismuth to a bottle containing the usual materials, with the result which you see (no digestion).

I think we may fairly conclude that any preparation purporting to contain both bismuth and pepsin contains *none* of the latter; and also that bismuth and pepsin in the form of powder is not an eligible combination. If it is desired to give both they will be more efficient separately.

As regards alcohol, Mr. Scheffer stated, in one of his earlier essays, that "dry pepsin, precipitated with alcohol from its solution, did not act at all on albumen." This he afterwards found to be a mistake, since it was not from an acid solution that he obtained a precipitate by alcohol, but from one rendered neutral by carbonate of soda. The carbonate of soda permanently modifies the digestive properties of pepsin, and destroys its action on freshly-coagulated albumen. It still acts, in a different manner, upon partly digested albumen. He showed, however, and this phial shows the same thing, that alcohol does not, in small quantity, prevent the digestive process, but retards it. You notice that the amount of albumen remaining, although evidently acted upon, is much larger than that in the standard phial. It would seem, then, that a wine of pepsin may contain

some of the ferment, although, from the activity of the mucous membrane, after the wine has been prepared from it, the quantity extracted cannot have been large. Another property of pepsin, which I have not before mentioned, indicates that it is to be found in rennet wine or liquid rennet. This is used for the purpose of coagulating milk, which it will do at ordinary temperatures. This coagulation is not due to its acid, as was found by comparing its action with that of dilute muriatic acid of about the same strength. If to the tube containing milk unacted upon by the acid, pepsin was added, coagulation then took place.

Also, if the rennet wine were *boiled*, it lost its action upon milk; so that, so far as its power in coagulating milk goes, rennet wine behaves like an acid solution of pepsin. The proof, however, must be in the direct experiment, the result of which you see. (A small amount of digestion. The temperature was a few degrees lower than in previous experiments, and the digestion of the albumen in pepsin, made at the same temperature for comparison, also took place slowly.)

I have tried no preparation of the wine of pepsin. There seems no reason why these should differ from the liquid rennet.

It has been thus far assumed that the conditions in these experimental phials and in the human stomach were nearly the same. It is fair, however, to state certain points of difference. In the stomach, the agitation and mixture of the solvent and food is, or ought to be, much more thorough. In the stomach, the portion digested is absorbed nearly as fast as it is formed.

In the stomach, certain incompatibles may be removed before the action of the pepsin is completed. This is chiefly true as regards alcohol, which, in ordinary doses, is probably absorbed long before the time for the digestion of an ordinary meal is over. It is not infrequently objected that the amount of albumen dissolved by pepsin is entirely insignificant in proportion to the amount usually taken at a meal, even by an invalid. This is true, if we consider only the amount dissolved, with a given amount of acid, in these experiments, which are intended to represent only the relative value of different varieties. Mr. Scheffer has, however, shown that, under conditions resembling more closely those of stomach digestion, pepsin may be made to dissolve much more. By the successive addition of acid, water and albumen, the amount of the latter dissolved can be very much increased, so that half a grain of purified pepsin, that is the pepsin before the addition of the sugar of milk, dissolved 1500 grains of albumen, and perhaps would have done more.

In another experiment, he found that, upon adding a saturated solution of common salt to the clear fluid obtained by the digestion of albumen, a precipitate was produced which, in its turn, being dissolved in acidulated water, digested still more albumen, and, by continuing this process, twenty grains of saccharated pepsin dissolved at

the rate of between 4000 and 5000 grains. That is, we see that pepsin is a true ferment, and not a chemical reagent; so that, although the amount of albumen digested in the test tube in a given time furnishes a fair test of the value of the preparation, it does not limit its activity in an organ which absorbs more or less of formed products, and which, for all we know, may be capable of rapidly returning to its own interior the ferment which, while digesting other albuminoids and giving to them in their turn catalytic power, does not lose its own activity.

CONCLUSIONS.

Much of the dissatisfaction with pepsin expressed by physicians is due to the use of preparations which contain little or none of it.

The pepsin made by Scheffer's process is by far superior to any other in ordinary use.

The wine is feeble, but not necessarily inert.

Elixirs of pepsine and bismuth are humbugs.

Pepsin should be administered with an acid, and with as few drugs as possible. A small amount of alcohol is not inadmissible, but a large amount retards digestion.

Its beneficial action is *not limited* by the amount of albumen which it dissolves in a test tube without change or renewal of any of the contents.

"PEELING" THE NOSE, IN CASES OF HYPERTROPHY.—M. Ollier, of Lyons, has proposed, and in two instances carried out, an operation for the relief of the excessive hypertrophy of the nasal organ, occasionally met with in drunkards, the lobular masses there deposited being at times of such magnitude as to interfere with speech, respiration, or the reception of food, and occasionally impeding binocular vision, thus causing strabismus. The patient being narcotized, M. Ollier cuts through the skin and thickened tissues on the dorsum of the nose; then dissects them carefully upon each side, taking the greatest care not to touch the cartilages, and to preserve the fibrous tissue which holds them together. He thus entirely spares the fibro-cartilaginous framework of the nose, so as not to interfere with its form or functions. The introduction of a finger into the nasal cavity allows the surgeon to judge of the thickness of the tissue which he is leaving, and to be certain of the integrity of the essential parts of the nose.—*British Medical Journal.*

ARTIFICIAL BUTTER.—This new commodity, manufactured from beef suet, having met with an extensive sale in London and Paris, is now being introduced by M. Paraf into the markets of New York and Boston. We must admit that the single specimen seen by us, had both the appearance and taste of ordinary firkin butter. The butter is made from the yellow, tasteless and odorless oil that is obtained from beef suet. This oil is placed in churns, with one-fifth its weight of sour milk, and churned until an emulsion is formed, anatto being added to give it the required color. It is then cooled, and worked and salted like common butter.

Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By E. S. Wood, M. D.

Physiological Chemistry.

Amount of Hæmoglobin in the Blood.—(Comptes Rendus de l'Académie des Sciences. June 16, August 11 and August 18, 1873.) M. Quinquand gives the results of analyses of blood for hæmoglobin, which are based upon the determination of the maximum amount of oxygen which any given specimen of blood can absorb, in accordance with the following principle: That the maximum volumes of oxygen absorbable by a given volume of any blood are proportional to the amount of hæmoglobin which these specimens of blood contain. Thus, he found that 100 cub. cent. of human blood will absorb 260 cub. cent. of oxygen; 100 cub. cent. of ox blood will absorb 240 of oxygen; and 100 cub. cent. of drake's blood, 170 of oxygen. These numbers are proportional to the amounts of hæmoglobin found by Pelouze in these three kinds of blood, viz., 12.5, 12 and 8.2 per cent. respectively.

He finds that a progressive diminution of the quantity of hæmoglobin in equal volumes of blood generally follows the animal scale. Young animals have less than adults, females less than males, and birds less than mammals. In man, the amount is quite constant between the ages of twenty-five and fifty years, varying in a healthy person from 125 to 130 grms. per 1000 of blood. The amount varies very much in disease, sometimes, as in cancer, falling as low as 38 grms. in 1000. The diminution was found to be greatest in cancer, chlorosis and tubercular phthisis.

Absorption Spectrum of Hydrobilirubin.—C. Vierordt *(Zeitschrift für Biologie,* ix. 2, p. 160*)* details some experiments upon the absorption bands of this substance, which was obtained by Maly from bilirubin.* These experiments are valuable as showing the coloring power of this pigment, as well as affording us a means of estimating its amount approximately in the urine or other fluid.

The solutions subjected to the test were solutions of pure hydrobilirubin in very dilute alcohol, the light first passing through a layer of the fluid one centimetre in thickness, and then entering the spectroscope through a slit one millimetre in breadth. A solution containing one part in 500 of liquid had a deep brownish-red color, and caused absorption of all the light to a point between C and D (C 75 D) of the spectrum, so that the proper absorption band does not appear when so concentrated a solution is used. A solution, 1:1000, is dark red and absorbs all the light to D 87 E. A solution, 1:2000, is also dark red and absorbs all the light to E 18 F. It is not until the solution has been diluted to such an extent that it contains but one part in 4000, that the proper absorption band appears. A solution of this strength has a yellowish red color and absorbs all the light to G 35 H, but an absorption band appears to the left of this point, occupying the portion of the spectrum between B and one-half the way between F and G. A solution, 1:8000, has a bluish tinge mixed with the red, and the ab-

* Vide first semi-annual Report. Jan. 2. 1873. P. 15.

sorption band produced is narrower, occupying the space from E 45 F to F 25 G. A solution, 1:16,000, produced a still narrower band from E 52 F to F 4 G. A solution, 1:32,000, has a feeble bluish red color, and produces an absorption band which is feeble and narrow, from E 63 F to F.

The band produced by an ammoniacal solution is more to the left than that of an alcoholic solution of the same strength, the maximum absorption in the case of the ammoniacal solution being between E 18 F and E 63 F, while that of the alcoholic solution is between E 63 F and F.

Hydrobilirubin was found in three specimens of fever urine out of five which were examined. It was not found in the urine of a patient suffering with sub-acute miliary tuberculosis of the lungs, with high fever, nor in that of a typhoid patient with high fever. It was, however, found to be present in the urine of a patient with mitral disease (attended with icterus), and also in the dark yellow urine of a patient with carcinoma ventriculi and acute pneumonia, in which case all of the light was absorbed to a point about half way between F and G; i. e., about the same as by the 1:8,000 solution, although the absorption band was very narrow and weak, corresponding more nearly to that of the 1:32,000 solution. Hydrobilirubin was also found in the reddish-yellow urine of a patient with acute rheumatism.

Comparative examinations with these specimens of urine showed, that in normal urine the absorption of light steadily increases from the red to the violet; in the hydrobilirubin solution, it increases from the red to the line F, then diminishes to G 10 H, and finally increases again from that point to the violet; in the carcinoma and pneumonia case, it increased from E 63 F to F 65 G, like normal urine; and, in the acute rheumatism case, it diminished from F 21 G, but began to diminish later than in the pure hydrobilirubin solution. These comparisons show that in the two specimens of pathological urine, in addition to the hydrobilirubin, at least one other pigment must exist, and that its proportion to the hydrobilirubin was greater in the acute rheumatism case than in the other.

Presence of Carbamic Acid in the Animal Economy.—The existence of this acid in the system has been demonstrated by the experiments of Schultzen (*Berichte der Deutschen Chemischen Gesellschaft*, v. 578) and Salkowski (*Ibid.*, v. 637 and vi. 744), and its discovery is a very important addition to our knowledge of the processes of the retrograde metamorphosis of tissue.

After administering sarkosin (methyl-glycocoll) to a dog, in such an amount that the nitrogen contained therein was equal to the daily amount eliminated with the urine, Schultzen found that all of the urea and uric acid disappeared from the urine, and, in the place of these, different but well characterized organic products appeared. One of these was a compound of sarkosin with carbamic acid,

$$H_2 N C O + N \begin{cases} C H_3 \\ C H_2 C O_2 H, \end{cases}$$

called sarkosin-carbamic acid, a substance which may also be considered to be a compound of urea. Its formation is easily explained by the fact that the sarkosin meets in the circulation with carbamic acid, which forms with it the above compound urea instead of ordinary urea, as is the case, for instance, if glycocoll be administered instead of methyl-glycoll.

Another substance found by him in the urine, associated with the above, was a compound of sarkosin with sulphamic acid, which acid preëxists in albumen, and, under normal circumstances, is changed in the system to sulphuric acid and ammonia, the ammonia uniting with carbamic acid to form ordinary urea.

In like manner, after administering taurin to animals, Salkowski obtained a crystalline acid from the urine. This acid, which, when pure, is in the form of glistening quadrilateral plates, anhydrous, but deliquescent in moist air, soluble in water, but difficultly soluble in alcohol, and insoluble in ether, was found by analysis to be tauro-carbamic acid, a compound formed by the union of taurin with carbamic acid, it being precisely analogous to the sarkosin-carbamic acid obtained by Schultzen.

This union of taurin with carbamic acid, after ingestion of the former, takes place in men and dogs, but in rabbits, after the ingestion of taurin, only about one-fourth is absorbed and eliminated by the kidneys, the remainder appearing in the urine as sulphuric and sulphurous acids in combination with bases. Thus we have a rare example of the different chemical action of different orders of animals upon the same substance.

Urinary Chemistry.

Clinical Test for Mercury in the Urine.—Mayenson and Bergeret *(Journal de Pharmacie et de Chimie,* Aug., 1873, from *Lyon Médical)* performed this test by suspending a piece of iron, by means of a platinum wire, in the urine, and adding a few drops of sulphuric acid. In about one half an hour, the mercury will be deposited on the platinum. The iron and platinum are then withdrawn, washed with water, dried in a current of air, and then plunged into an atmosphere of chlorine gas. By this means, corrosive sublimate is formed on the platinum, and may be detected by wrapping it in a cigarette paper, which has been moistened with a solution of iodide of potassium, and exposing to a temperature of 212° Fahr. If any mercury were present upon the platinum, a brick-red streak of the biniodide of mercury will be left, where the platinum touched the paper. This test, according to the authors, will detect $\frac{1}{150000}$ part of a soluble compound of mercury in the urine.

From experiments on patients and animals, they arrive at the following conclusions:—

1st. That the compounds of mercury, when taken but once and in a small dose, are completely eliminated from the system in about four days.

2d. If taken in repeated but small doses, several days are required for their complete elimination.

3d. That corrosive sublimate, when injected subcutaneously, penetrates to every part of the system in about one half an hour.

4th. That mercury is found in the largest amounts in the liver and kidneys. That it is eliminated by all of the excretory glands, and that iodide of potassium has a marked action in freeing the system from the mercury which has become fixed by the tissues.

Xanthine Calculus.—M. Jaillard *(Journal de Pharmacie et de Chimie,* Aug., 1873, from *Gazette Hebdomadaire)* describes one of these calculi, which was extracted from the bladder of a boy, æt. 13, by lithotomy. It measured 5 cm. (2 in.) in its longest diameter, and weighed

22½ grms. (5¾ drachms). Its external surface was rough, its color brick-red, and it was quite brittle, the ends having been injured somewhat by the forceps in its removal. When sawed, the cut surface was brownish-red, susceptible of a beautiful polish, and showed concentric rays, which were quite regular near the centre, but uneven near the periphery.

The powdered substance was completely volatilized by heat, insoluble in water, ether, and the alkaline carbonates, but easily soluble in liquor potassii or sodii, ammonia water, sulphuric, nitric and hydrochloric acids. The solution in liquor potassii was precipitated by a current of carbonic acid gas, the precipitate being amorphous. The nitric acid solution left, after evaporation, a yellow residue, which was not changed by the addition of ammonia or a solution of corrosive sublimate. The alkaline solutions reduced neither a solution of the nitrate of silver, nor one of the potassio-cupric tartrate.

Cystin Calculi.—Jul. Müller *(Fresenius' Zeitschrift*, 1873, ii. p. 234, from *Archiv der Pharmacie*, Bd. iii. p. 308) has analyzed several of these calculi, which varied in size from that of a mustard seed to that of a bean. They consisted of pure cystin, and contained 25.3 per cent. of sulphur. The test recommended is to dissolve the powder in a small quantity of liquor potassii, dilute with water after cooling, and then add to the solution one of nitro-prussiate of potassium, when a beautiful violet is produced.

Toxicology.

Phosphorus Poisoning.—The number of cases, which testify to the value of turpentine as an antidote to phosphorus, is rapidly accumulating. Four are reported in full by Dr. Andant *(Annales d'Hygiéne*, Oct. 1873*)*, and others by Rommelaere and Mahame *(Jahresbericht über die Pharmacognosie, Pharmacie und Toxicologie*, 1873*)*. From observations on the above cases, and also from the experiments of Köhler, we may draw the following conclusions:

1st. That one part of turpentine is more than sufficient to neutralize the injurious effects of $\frac{1}{100}$ part of phosphorus.

2d. That the turpentine-phosphorous acid is formed by contact of the turpentine and phosphorus, as well within the system after absorption, as in the stomach.*

3d. That the turpentine should be given for a long time, i. e., for several days after the ingestion of the poison. In one of Rommelaere's cases the patient took, during 12 days, 37 grms. of turpentine, between four and five being given at the first dose.

4th. That the diet of the patient should be as nearly free from fat as possible, since fats or oils facilitate the absorption of the phosphorus; consequently, milk should not be given as a drink, nor castor oil as a purge. One of Mahame's patients, who was steadily improving under the turpentine treatment, suddenly failed and died after the administration of castor oil by her parents, contrary to the advice of the physician.

D. A. von Bastelaer gives, in the *Journal de Pharmacie et de Chimie* (May, 1873), a method for the separation of phosphorus in a state of purity from food, contents of the stomach, or other substances which contain fat, so that in medico-legal cases it can be taken into court as the *corpus delicti*. This process depends upon the ready solubility of

* Vide the first semi-annual Report, Jan. 9, 1873, p. 35.

both phosphorus and fat in ether, and the solubility of the fat in ammonia water, which is without action upon phosphorus.

The substance, after the addition of water, if necessary to render it sufficiently fluid, should be shaken with an equal volume of ether repeatedly for four or five hours, the ether decanted, and the process repeated with fresh ether two or three times. The united etherial fluids should then be allowed to evaporate spontaneously, a little water being added toward the end of the evaporation, in order to prevent contact of the phosphorus with the air. The aqueous liquid, after the evaporation of the ether, should then be warmed to 50° or 60° C., which will cause the particles of phosphorus to unite together in the form of a drop at the bottom of the vessel containing the water, while a large portion of the fat will float upon the surface of the water. Some of the fat, however, remains with the phosphorus, and can be separated from it by shaking with strong ammonia water several times. Then, by washing the phosphorus with dilute sulphuric acid and finally with water, we obtain it perfectly pure, and with its characteristic physical and chemical properties.

Action of Water upon Metallic Lead. By Sir Robert Christison, Bart. *(Chemical News,* July 11th, 1873.*)*—The results obtained by the author from many experiments are as follows:

"1st. That the purest waters act the most powerfully on lead, corroding it and forming a carbonate of peculiar and uniform composition.

"2d. That *all* salts impede this action, and may prevent it altogether; some of them when in extremely minute proportions.

"3d. That the proportion of each salt required to prevent action is nearly in the inverse ratio of the solubility of the compound which its acid forms with the oxide of lead."

The statement is also made that sulphuretted hydrogen, as usually employed, will detect lead if it is dissolved in ten million parts of water, but "facts, however, warrant the conclusion, that the impregnation must amount to at least ten times this quantity before water can act injuriously upon man, however long it may be used."

Poisoning by Pseudo-Homœopathic Preparations. — At a recent meeting of the Clinical Society of London, Dr. George Johnson reported three cases of poisoning, from small doses of the "Concentrated Essence of Camphor," now extensively employed by the followers of Hahnemann. Dr. Johnson called attention to the notorious fact that, in England, the homœopaths have lately made a change of base, "passing from the irrational and ludicrous extreme of infinitesimal dilutions to the dangerous extreme of the greatest possible concentration of active and poisonous drugs." In the discussion which followed the reading of this paper, several other cases were cited of analogous malpractice on the part of these charlatans, who being unwilling to publicly renounce the absurdity of infinitesimal doses, have recourse to these concentrated tinctures, in order to produce an appreciable effect, by very minute doses. The *British Medical Journal,* in commenting upon this exposure, finds additional evidence that homœopathy, "which had begun as a delusion, is now rapidly ending as a fraud."

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC.

Oct. 13th.—*A Case of Ataxic Symptoms for three Years or more. Atrophy and Sclerosis of Spinal Cord.* Dr. Edes reported the case and showed the specimen.

The patient, F. A. S., æt. 70, entered the City Hospital Sept. 15th. Had been a moderate drinker. Had had gonorrhœa, but not syphilis. Was healthy until fifteen years ago. Then he began to have attacks of dizziness and staggering while walking, lasting a minute or two. These have gradually increased in frequency since. There was no loss of power in legs at any other time until three years ago, since when he has gradually lost power over them, until now he cannot walk alone. Dizziness and staggering are much worse when the eyes are closed. For the last eighteen months, has lost power over sphincter ani, dejections often taking place without his knowledge. Can retain urine for about three hours; after that time it dribbles away. Mind not quite so strong as formerly, but does not think his memory has been affected. Cannot write what he wishes to. "Thinks one thing and writes another," but can pronounce words which he desires. Never had pain in back, except for a few days on re-application of a truss which he had worn for many years and left off for a short time. Then pain was felt on right side of lower lumbar vertebræ, and left leg was partially paralyzed, both in sensation and motion. On removing truss, symptoms disappeared. Appetite good. Tongue somewhat coated. Bowels irregular; at present somewhat loose. Sensation not so acute in left leg as in right, but decided tactile anæsthesia in both legs. Answers questions readily, but slowly; articulation rather indistinct. No history of anything like "*douleurs fulgurantes*" could be obtained.

After his entrance, he was at times delirious, attempted to get out of bed, but could not walk. Could stand with his eyes open, but on closing them, immediately began to tip forward or backward, as happened. Could write slowly, but a very intelligible hand. Electricity (Faradic) and phosphorus were ordered. The muscles reacted well to the stimulus. He gradually failed in strength and in mental capacity. On Oct 7th, muttering delirium was noted. When roused, answered questions. Lay with his eyes half closed and head retracted. Pupils much contracted; do not respond to light. He died on Oct. 9th.

Autopsy.—The dura mater was firmly adherent to the skull. The pia mater was somewhat thickened and finely mottled with whitish opacities, and contained in its meshes about three ounces of serum. Brain substance healthy. Dura mater of spinal cord presented some patches of whitish opacities, resembling those mentioned above. The pia mater was congested and the vessels enlarged, especially upon the posterior surface. It contained, at various places, small porcelain-looking (microscopically fibrous) plates from one fourth of an inch in diameter down, usually more or less oval in outline, with thin edges. These were most abundant in lower dorsal and upper lumbar region.

The cord itself showed a very marked diminution in size, more evident in the cervical region, where it appeared flattened out, hardly

more than one half or two thirds its normal size. It looked as if puckered in on its posterior surface. On section, a gelatiniform or semi-translucent look was observed in the posterior columns.

Sections made at various heights, colored and made transparent in the usual manner, showed a certain amount of atrophy of the whole white substance, the sections being compared with others from a normal cord. In the posterior columns, which were the most atrophied, the characteristic lesions of locomotor ataxy, or so-called sclerosis, could be seen, the nervous elements being much diminished in number and the interstitial fibrous tissue increased. In the lumbar region, this alteration was chiefly found in a thin layer of the whole posterior surface, from the nerve roots of one side to those of the other, being thickest just internally to the posterior nerve roots and on each side of the posterior septum. In the dorsal region, it extended somewhat deeper, while in the cervical it was chiefly confined to the "wedge-shaped columns of Goll," situated upon each side of the posterior median fissure, and occupied nearly the whole depth of the cord to the posterior commissure, this depth, however, being but about half the normal. Outside the limit of these columns, a much less degree of the same alteration was to be seen. It was undoubtedly owing to the extreme atrophy of these centrally situated columns that the cord owed its contracted appearance in the cervical region.

The nerve roots were also atrophied. No corpora amylacea or granular corpuscles were found on examination of the fresh specimen.

The precise height at which the lesion terminated was not made out. No sections were made at the level of the spinal accessory roots, while at the level of the decussation, no change could be detected.

No portion of the brain above the pons was examined microscopically. Other organs were healthy. .

Dr. EDES showed drawings on an enlarged scale of sections made through a healthy cord, and of the specimen. These drawings showed the marked atrophy of the posterior columns very clearly.

The Line of Dulness in Pleuritic Effusion.—Dr. ELLIS referred to this subject, and to some remarks which he had made on it at a previous meeting, in March, 1873, which were as follows.

Dr. ELLIS said, it is generally stated and believed that when serum began to collect in the pleural cavity, it is first detected in the lowest part of the back, the line extending from the spinal column outward, unless old adhesions cause a variation.

Dr. ELLIS thought that there were many exceptions to the rule. When the effusion is small, it may occupy a conical portion of the pleural cavity in the sub-axillary region, when both resonance and respiration may be wanting.

But, in a certain number of cases where the effusion is quite large, if an accurate line be drawn, the flatness will be found to describe a curve, gradually approaching the spine toward the base of the chest, having a space from one to three or more inches broad between the spine and the line of flatness. In this space, resonance will still be detected, and respiration heard. As the effusion increases, this line approaches nearer and nearer the spine, until the whole back becomes flat. The modifications of the voice noticed in pleurisy bear the same relation to this line as they do to the horizontal. It was thought that the point might be of value in diagnosis, as the presence of both resonance and respi-

ration on the part of the back mentioned might lead one to conclude that there was no effusion.

Dr. Fitz asked if the return to resonance and normal respiration by means of the absorption of the effusion showed the same curved line.

Dr. Ellis was not able to say whether this was the case or not.

At a subsequent meeting, Dr. Fifield, in speaking of the means of estimating the amount of fluid in the pleural cavity, said that the following facts had been proved by Damoiseau, namely, that when a subsiding effusion was sufficient to reach a level of seven centimetres, or more, above the nipple, the line of dulness was a horizontal one, but that when the effusion was less, the line of dulness was a curve, the highest point of which was at the side, from which it gradually fell as it approached the median line towards the spine. This curve was known as the "curve of Damoiseau," and had been also noticed by Dr. Ellis in increasing effusions. Dr. Fifield read extracts from a copy of the *Revue Médicale* of 1843, in which Damoiseau's article appeared.

Dr. Ellis said that, until his attention had been called to this article by Dr. Fifield, he had not been aware that the point had been observed, but that Damoiseau's description of this curve agreed with his observations, as did also a statement to the effect that a spot about two and a half centimetres above the anterior extremities of the eleventh and twelfth ribs was where a commencing effusion usually made itself first evident. He said that, at the time he had spoken on the subject, all his observations had been made in cases during the commencement of an attack, so that he could not form any opinion as to the occurrence of this curve in the return to normal resonance. Since then, however, he had had a case where the pleural cavity was so full as to call for paracentesis thoracis, and, after the fluid had been drawn off, the same curve was found. In still another case, in which spontaneous absorption took place, the same curve could be clearly demonstrated. It must be remembered, however, that adhesions may be formed during the inflammatory stage, which might prevent the fluid left taking this curved position, so that we should not expect to find this curved line in every case.

Dr. Fifield said that it was by no means clear why this curved line should be found, as it is stated that experiment has shown that when the pleural cavity is partially filled artificially, the line of dulness is the reverse of this.

Pulmonary Disease in connection with Pressure on the Primary Bronchus.—Dr. J. B. S. Jackson spoke of a diseased condition of the left lung, found in connection with aneurism of the aorta, to which attention had been called by Dr. Ellis.

Dr. Ellis said that he had found that pressure on either bronchus, by aneurism or any other tumor, was followed by inflammation in the lung to which the bronchus was distributed.

Dr. Jackson spoke of a case in which the left bronchus was compressed by an aneurism, and the left lung was almost one mass of purulent disease, the right lung being perfectly healthy. The pulmonary symptoms only dated back five weeks previous to death, the first being the expectoration of a large amount of pus. In this case, the pus formed an opening in the thoracic walls.

Dr. Ellis spoke of a case that he had seen in Berlin, where a bronchus was filled by a cancerous growth, and the lung was one mass of

small, caseous, pneumonic foci. The reason for this would seem to be that the whole function of the lung is perverted. The air does not enter it freely, and, moreover, the nutritive vessels and nerves must be compressed by the same means as the bronchus.

Cancer of Liver.—Dr. LYMAN reported the case and showed the specimen.

Ship carpenter, æt. 36. Entered hospital July 23, 1873. Had intermittent fever fifteen years ago. Has been hard drinker, especially of whiskey. Last winter, noticed occasional shooting pains in region of liver. Has never been jaundiced. Occasional vomiting during last two months. Three weeks ago, abdomen began to enlarge—is now greatly distended with ascitic fluid, skin tense and shining. Anasarca commenced a week ago, feet and legs now greatly swollen. Complains mostly of pain in region of liver. Micturition free. Temperature 98°, pulse 114, respiration 26.

24th.—Twenty pints *clear* fluid withdrawn by tapping, followed by such severe epigastric pain as to require subcutaneous injection.

25th.—Constant shooting pain over liver and pain in right shoulder. Urine acid; specific gravity 1023. Considerable albumen. Many granular epithelial cells and a small amount of biliary pigment. Hepatic dulness to fourth rib above and umbilicus below. Liver very hard and nodulated and tender. Movement of parietes developed; a crepitus resembling emphysema and confined to region of liver. Abdominal veins enlarged. Anasarca subsiding.

Aug. 8.—Fifteen and one-half pints of clear fluid drawn by tapping, and again, Aug. 29th, fifteen pints. The peculiar crepitus followed each operation.

Sept. 27th.—Thirteen and three-quarters pints drawn; no crepitus found subsequently. The tumor now pushes the parietes one or two inches above the general surface, measuring about eight inches across by six down. Impulse of aorta strongly transmitted. Lower ribs project abruptly.

Oct. 10th.—The patient is now jaundiced. Fourteen and one-half pints of *greenish* fluid drawn, and again, on the 31st, eighteen pints.

Nov. 18th, died.—Until the last week, the patient's appetite and digestion continued good, and the tappings were done at his own request to relieve the distention and dyspnœa.

Post-mortem.—Skin deeply jaundiced. Entire upper half of abdomen filled by enlarged liver, weighing eleven and three-quarters pounds, covering stomach, pancreas and spleen, and so adherent to these organs and to duodenum as to necessitate the removal of all *en masse*, but no extension of the disease to any of these organs. Liver hard, surface nodulated. Cancerous deposits hard and so abundant as to constitute nearly whole bulk of the organ. No pleural or pericardial adhesions. Heart healthy. Lungs contained a few scattering cancerous masses as large as peas or beans. A few cancerous nodules in peritoneum near the bladder. Right kidney degenerated and smaller than the left.

A Stomach-tube swallowed and on the following Day rejected.—Dr. JACKSON showed the tube and reported the case, which occurred in this vicinity.

The patient was a married woman, 45 years of age, suffering from acute mania, and had been fed with a stomach tube three times daily

for about a week. The tube that was used was of the ordinary kind, but had been cut down to fifteen inches in length, and there was tied to it a piece of common rubber tube, about five inches in length, and that connected it with the syringe. At 1, P.M., on the day on which the accident occurred, food was given as usual, and the struggles of the patient were so violent that her physician required the help of three assistants to manage her. The operation being over, and the syringe detached, he proceeded to remove the tube, when he found, to his dismay, that it had slipped off from its attachment. Every attempt was made, with the fingers and with the forceps, to seize it, but without effect. Four hours afterwards, Dr. Hodges saw her, and, after the passage of the long œsophageal forceps, and of a probang entirely into the stomach, without feeling the tube, he felt that it must have passed down into the stomach, though from the result this could hardly have happened. Nothing, of course, was to be done, and the case was left to nature, but without any idea of its expulsion, unless it should first traverse the whole course of the intestine. The following night was passed more comfortably than usual, though when the patient was awake, there was occasional retching, and, the next morning, between 8 and 9 o'clock, this was quite urgent. At 9, A.M., a stomach-tube of full length was again passed, food was given, and, on withdrawing the tube, the lost one came up and almost side by side with it, the upper or cut extremity of the tube coming up in advance. The retching was, of course, at once relieved, and on the second day the patient began to take her food in the natural way. The tube, when first expelled, was lead colored, but, on drying, it resumed its usual appearance, and it may now be seen in the museum of the Medical College, as a donation from the attending physician.

Disease in the Tusk of a Walrus.—Dr. Jackson showed the section of the tusk, into the pulp cavity of which a large and luxuriant growth of osteo-dentine was protruding, made by Mr. Frederic A. Merrill, a student in the Dental College, and presented by him to the Medical College Museum. Preparations had also been made by Mr. M. to show the microscopic appearances. Dr. J. alluded to an enormous and similar growth, in the case of a sperm whale's tooth, that was shown some years ago to the Society, and to another case in which a large mass had probably been free in the pulp cavity, as minute granulations sometimes are in that of the human subject.

New Drugs.—Two new plants, called *Echisis scholaris* and *Garcinia mangostana*, both natives of the Philippine Islands, have attracted some attention at the Vienna Exposition. From the bark of the *Echisis*, a hygroscopic bitter principle has been obtained, to which the name *Ditain* has been given. This has proved not only a perfect substitute for quinine, but it has also been found that in its use the frequently unpleasant after-effects of quinine are avoided. The *Garcinia* has been shown to be a safe, rapid and thorough remedy for dysentery and chronic diarrhœa, as well as all catarrhal affections of the bladder and urethra. Both drugs have been extensively employed in the hospitals of Manilla, under the direction of Professor Miguel Zina, chief physician of that province.—*Zeit. des allg. Apoth.-Ver.*

Bibliographical Notices.

The Life of John Warren, M.D., Surgeon-General during the War of the Revolution; first Professor of Anatomy and Surgery in Harvard College; President of the Massachusetts Medical Society, &c. By Edward Warren, M.D., Author of the Life of Dr. John C. Warren. Boston: Noyes, Holmes and Company. 1874.

The painstaking fidelity and fraternal feeling which Dr. Edward Warren exhibited in the Life of his brother, Dr. John C. Warren, have prepared us to expect the same diligence and not less affectionate interest, certainly, in this new work, the Life of Dr. John Warren, his father. If he had called it the Life and Times of its subject, he would have given a better hint as to what the reader was to anticipate. The book is made up very largely of accounts of the scenes and events in the midst of which Dr. Warren passed his busy life, and will interest our local antiquarians and historians as well as the members of the medical profession.

The name of Warren has been associated with the practice of medicine in Boston for more than a century. It began illustrious and has always continued eminent. We must look abroad to find such another instance. Monro *Tertius* died in 1859, the last of the three Professors of Anatomy in the University of Edinburgh, with which institution they were connected during a century and a quarter. The example of the Warrens, and, we may add, that of the Adamses, shows that even the republican *furca* cannot drive off Nature when she insists on keeping up a line of her own selection and giving them hereditary privileges. We have had family dynasties here in New England from a very early period, as one of the old epitaphs shows us in homely verse:—

> "Under this stone lies Richard Mather,
> Who had a son greater than his father,
> And eke a grandson greater than either."

The fame of Joseph Warren, the first distinguished martyr of the Revolution, is the central glory of the name. We are apt to forget, in recalling his patriotic services and his death on the battlefield, that he was also the founder of the medical and surgical reputation which have so long flourished among the descendants of the same stock with himself. Joseph Warren was twelve years older than his brother, the subject of this biography, who studied medicine in his office. The double relation of brother and pupil must have been something far beyond that which commonly connects the student with his instructor in our time. It was, as the biographer points out, a kind of apprenticeship. We see, in Dr. John Warren's life, the effect of the practical teaching which fitted him to enter on important duties at an early age, and we see also the warm attachment of the younger brother to the elder, whose death seemed to him like the loss of a parent.

Joseph Warren was the pupil of James Lloyd, who was educated in England. Dr. Lloyd had walked the hospitals with Cheselden and Sharpe, he had attended the lectures and operations of Dr. William Hunter, and enjoyed the advantage of his private instructions; he had sat at the feet of Smellie and of Warner of Guy's Hospital, and

all these instructors had recognized and given testimony to his merits. It was not, then, by accident or spontaneous evolution that the founder of the professional reputation of the Warrens appeared among the provincial practitioners as an accomplished surgeon. He learned, at only one remove, from the great masters of his art in the greatest city in the world. Self-made men are admirable in their way, but when the same zeal and ability which have won success for them are trained in the best schools of science and art, a few years do more than a lifetime passed in learning by failures, undoing what has been done wrongly, and setting up for one's self, letter by letter, a few pages of the volume which has been stereotyped for centuries. The traditions brought over by Dr. Lloyd, conveyed to his pupil, Joseph Warren, and by him to John Warren and to those who inherited his knowledge, were those of the best practitioners of the time.

Dr. John Warren was without question the most distinguished surgeon of his time in Boston. Dr. John C. Warren, his son, says of him, "My father, who preceded me, was a much better surgeon than myself." It is saying a good deal for one so eminent as the late John C. Warren to claim so much as this for his predecessor, and, without accepting the statement as doing justice to the younger of the two, we must at least recognize it as very high praise from a very competent source. He gave the first anatomical demonstrations ever made in Boston. He prepared the outlines of a plan for a medical school connected with Harvard University, and was the first professor chosen. We have heard those who have listened to Dr. John Warren's lectures on Anatomy speak of them as full of life and even eloquence. A dry bone, it is said, would almost regain its vitality in his hand and in his enlivening description. His business seems to have been larger than that of any practitioner in the generation which followed. But he was not content with practice alone, nor with the additional labors of his Professorship. He took an active interest in politics and wrote many stirring appeals on subjects of importance to the public. He was an enthusiastic disciple of Freemasonry, and became Grand Master of the Massachusetts Lodge. He was one of the founders of the Massachusetts Humane Society. He was the father of sixteen children.

This busy and useful life has been followed through its threescore and two years, from 1753 to 1815, by Dr. Edward Warren, the youngest of his children, if we remember right, with a loving diligence which has diffused itself not only over the immediate environments and conditions of its subject, but over many scenes and events which might at first sight seem somewhat remote from the writer's immediate aim.

Our medical readers will trace the career of the young surgeon from his first settlement in Salem, through his arduous labors as Hospital Surgeon, to his final settlement in Boston and his gradual rise to the preëminent place he at last held. They will learn incidentally many interesting details of the medical history of Boston, and obtain glimpses of its past celebrities which will be sure to engage their attention. They will learn many facts about the epidemics of preceding generations as they appeared here and in other places.

The general reader, who may care less about the professional matters treated in the book, will glean a large amount of information bearing on great events, both of peace and war, from the throwing overboard

of the Tea in 1773, to the illumination for peace in 1815. The local historian will find paragraphs enough to fill one or more of his scrap-books, and will transfer without abridgment the whole chapter on "Domestic Life," which is as unsparing of minutiæ as a photograph, and would rejoice the soul of a thoroughbred antiquary, to whom *ne quid nimis* is the most unintelligible of precepts.

All readers will find themselves interested in the character of John Warren. Of a most ardent temperament, subdued to steady and persistent toil, a versatile intelligence which he kept faithfully to its appointed work, an affectionate and sympathizing nature, which was largely taxed and freely answered to all the incessant calls upon it from the sick and suffering, with a good deal of the hero in his disposition, which rendered it a question more than once whether he would not, like his brother, forsake his peaceful calling for the battle-field,— liberal, public-spirited, living to work, and dying at his work, he was worthy to be the founder of an honored name, which we are permitted to hope may long continue to be held in the respect and esteem it has claimed for three generations of those who have borne it and have left it to the grateful memory of after times.

O. W. H.

BOOKS AND PAMPHLETS RECEIVED.

On the Transmission of Syphilitic Contagion in the Rite of Circumcision. By R. W. Taylor, M.D. (Reprinted from the New York Medical and Surgical Journal.) New York. 1873.

Transactions of the Medical Society of New Jersey. 1873. Pp. 224.

Chromo of Andreas Vesalius. (From Codman & Shurtleff.)

The Physician's Handbook for 1874. By William Elmer, M.D., & Albert D. Elmer. M.D. New York: W. A. Townsend.

Annual Report of the Surgeon General of the United States Army. 1873. Pp. 13.

Essays on Diseases of Children. By Wm. Henry Day, M.D. London: J. & A. Churchill. 1873. Pp. 191.

Operative Surgery Revolutionized by Anæsthetics. — Professor Quinlan, in the *Medical Times and Gazette*, of November 8th, 1873, says:

"Formerly, the great aim of the surgeon was to accomplish his awful but necessary duty to his agonized patient as rapidly as possible, and a clinical clerk, with a watch, always stood by to note the time so occupied. Mr. Herbert Mayo performed amputation at the hip-joint, in ninety seconds. Mr. Edward Hutton amputated the middle of the thigh in seventy-eight seconds; and I have heard Jobert de Lamballe pronounce, not very slowly, the words, *un, deux, trois*, while he, with lightning speed, removed an arm at the shoulder. We have changed all this. We operate, like the sculptor, upon an insensible mass; we go carefully through our work, and although accomplishing it as quickly as we can, we do not count the seconds."

Boston Medical and Surgical Journal.

Boston: Thursday, January 1, 1874.

The Editors desire to take advantage of the opportunity offered by the opening number of a new year and volume to express their thanks to the profession for the support given them during the past twelve months in their efforts to improve the standing and circulation of the Journal. A substantial enlargement of the subscription list and a great increase in the amount of original matter offered for publication are gratifying proofs that these efforts have not been wholly without avail. The success of the Reports on the Progress of Medicine has been such as to encourage a continuance of this feature of the Journal, and the experience of the past year gives promise of still greater improvement in the future. The departments of Reviews and Correspondence have been materially enlarged, and the Editors, gratified with the success which has met their efforts in this direction, hope now to turn their attention to other and not less important improvements. The advantages which a city like Boston possesses for furnishing material interesting and instructive to the profession ought not to be lost sight of. The pages of the Journal are open to the hospitals, societies and teachers of medicine, as well as to private contributors. We trust the Editorial management of the Journal is such as to encourage contributions from all these sources. As stated at the beginning of the past year, we shall make it our endeavor to take an active part in all discussions which affect the dignity or interests of the profession and the health of the community. Our views will be expressed freely and frankly, and although they may not prove acceptable to all, we shall endeavor to tell the truth as we see it, rather than follow a time-serving policy, that we may offend no one. We look confidently to the profession for support.

Before yielding to the natural impulse which at this season inclines us to look forward, it may be well to cast a glance at the trials and struggles of the past year. It will not be classed among those happy ones that have no history, but, on the contrary, will be associated with many melancholy recollections. Death has reaped a rich harvest. Medicine and Science have lost Liebig, Nélaton, Holland and Agassiz, and a large number of well known and respected though less distinguished followers. Cholera has raged throughout a great part of Europe, and has made an attack, happily a slight one, in the Southwest-

ern States. Yellow fever has been rampant in the Mississippi Valley; its victims are numbered by thousands. Nearer home, we have seen the close of the severe epidemic of smallpox and have been visited by a slight one of cerebro-spinal meningitis.

On the other hand, there has been much for congratulation. The first important event in this city was the appointment of a Board of Health, which went to work energetically, and soon completely suppressed the epidemic of smallpox which, in spite of the city government of the previous year, was already on the decline. The members of the Board did not consider their task done when there remained no active disease to combat, but with praiseworthy forethought took precautions against possible epidemics during the summer, and in the most fearless manner suppressed numberless nuisances. The expulsion of the homœopaths from the Massachusetts Medical Society is another gratifying incident. Freed from the reproach of their presence, the profession stands in a most satisfactory position, and bids fair to obtain the influence in public affairs which is its due. We would not be misunderstood on this point. Nothing is further from our wishes than that the profession should expose itself to defilement by contact with politics; but as guardians of the public health, as the best judges on many points of public morality, physicians, as a class, have a right to a voice in many matters. If we claim this consistently, moderately, but persistently, it cannot be denied us. If we do not claim it, we do not use all the means at our command for the benefit of society and the honor of the profession, and are false to the duty we owe to both.

A CORONER'S jury in recently rendering a verdict in this city, recommended that in all cases where persons are brought into station-houses in a state of insensibility or coma, such persons should have the immediate benefits of a physician, whose suggestions regarding such cases should be carried out. The following instance, taken from the *Canada Medical and Surgical Journal*, will show that there are other analogous cases, in which the rule might with still greater propriety be observed.

A few weeks ago, there arrived in Montreal a sailor, who, during the long voyage, had developed unmistakable symptoms of locomotor ataxia, which had for some time been threatening him. The day following, he left his ship, and was endeavoring, with the hesitating and uncertain gait peculiar to his disease, to make his way to the hospital, when he was overhauled by a policeman, and, in spite of his earnest remonstrances, dragged to the station, charged with being drunk. On the morrow, he was presented before the Recorder, and when he again

endeavored to explain the case, was told, on account of the difficulty of utterance under which he labored, that he was still drunk, and was forthwith condemned, in default of a fine, to imprisonment in the common jail for one month.* This imprisonment the helpless man was obliged to undergo, finding it impossible to get any one to listen to his story, although it must have been clear to all that his condition remained unaltered throughout. Immediately on his release, he sought and obtained admission to the hospital, where, at last accounts, he was still under treatment.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, December 20, 1873.)

OPERATIONS were performed in the following cases:—Dislocation at the Shoulder-joint, Tumor of Upper Jaw, Palmar Abscess, Tumor of Palate, Felon, Fistula Ani. During the week, Retention of Urine, with extensive extravasation, Vesico-Vaginal Fistula. On Monday last, Dr. Bigelow operated, during his clinical lecture, for Lupus of Nose, Torticollis, Abscess and Fistula in Ano.

Dislocation at Shoulder-joint of six weeks' standing. Male patient. Before employing extension, Dr. Cabot applied long strips of adhesive plaster to the chest to steady the scapula. The limb was first forcibly rotated to rupture adhesions. Horizontal extension was then made, counter-extension being maintained by a folded sheet carried under the axilla and crossed over the shoulder. After a few seconds, the head of the bone slipped into place. Dr. Cabot thought that the adhesive straps notably facilitated reduction by helping to fix the scapula.

Tumor of Upper Jaw, in a woman 53 years of age. The disease made its appearance about ten months ago, in the roof of the mouth on the inside of the alveolar process. It gradually increased in size, involving the horizontal plate of the maxilla, but did not occlude the nostril of that side, nor was it accompanied by pain. Dr. Bigelow operated by making a curved incision through the cheek, from near the zygomatic arch to the commissure of the lips, also a vertical incision through the upper lip from the nostril of that side. The flap thus formed was reflected so as to expose the maxilla nearly to the infra-orbital foramen. He then sawed horizontally through the antrum across the front of the bone, divided the hard palate on the median line with cutting forceps, incised the soft palate transversely behind and separated the maxilla from the pterygoid processes. The greater portion of the tumor (which proved to be epithelial) was comprised in this bony section. The small remaining portion, which had been sawn across, readily dropped from the upper part of the antrum which it occupied. Free hæmorrhage was controlled by tying vessels as the incisions were made. The flaps were adjusted; stitches were inserted, as usual, during anæsthesia, and their ends knotted together. The wound was then left widely open, until oozing should cease, and the house-surgeon directed to approximate the edges and tie the sutures together, four hours afterward. This practice has been followed in this hospital for many years as a precaution against secondary hæmorrhage in most considerable operations.

Palmar Abscess.—The pus had burrowed under the tendons of the first, second and third fingers. Dr. Cabot laid the cavities freely open.

Tumor of Soft Palate, in a woman. Her attention was called to its interference with deglutition a few months since. It was unaccompanied with pain, and about the size of a grape. Dr. Bigelow incised the tumor, which

proved to be a mucous cyst, and cauterized its interior with liquor ferri perchloridi.

Felon of Thumb—one week's duration. Dr. Cabot made a free incision.

Fistula in Ano—two cases. One was laid open by Dr. Bigelow, the other by Dr. Cabot.

Retention of Urine, with Abscess and Extravasation.—The patient was a man forty years old. Some years since, he fell on a log, injuring the perineum, since which he has had occasional attacks of retention, relieved by the catheter. One week ago, he had retention which did not yield to opiates, fomentations and catheter. Extravasation took place, beneath the dartos and superficial fascia, involving the scrotum, perineum and abdomen as high as the umbilicus, and laterally, downward on each side to Poupart's ligament. The patient was very weak on entrance, and suffering from intense pain. Under ether, free incisions were made, by Dr. Bigelow, as follows:—through the scrotum, along the raphé separating the testicles, and through the perineum to the urethra, the urine and pus gushing at each cut. A close stricture, posterior to the bulb of the urethra, was divided, and a No. 12 elastic catheter passed into the bladder. The tissues of the perineum were sloughing. A V-shaped incision was then made above the pubes, where the cellular tissue and muscles were found infiltrated with urine and pus. Two semi-lunar incisions, each five inches in length, were made on the sides of the abdomen, from a point two inches inside of the anterior superior spinous process of the ilium to the external abdominal ring. Sloughs were here also found down to the tendon. Vessels were tied, and poultices applied. The man has since steadily improved, the wounds rapidly filling with healthy granulations.

Vesico-Vaginal Fistula—in a woman 33 years of age, following a second instrumental delivery. At the operation, Dr. Cabot found a second fistula, which was left open to allow drainage of the bladder through the vagina, and for future operation. The edges of the fistula were pared and four silver-wire sutures inserted.

Lupus of Nose.—Case was reported in the JOURNAL for Dec. 11th. Rapid improvement followed the first application of the cautery, but the suspicious appearance of some points indicated a second operation. Dr. Bigelow again applied the galvano-cautery.

Torticollis—in a girl eight years of age, appearing one year after birth, without known cause. Dr. B. divided the tendon of the sterno-cleido-mastoid muscle subcutaneously.

Fistula in Ano—laid open, and the sphincter ani forcibly dilated.

Large Abscess of Neck—Glandular. Punctured with trocar and canula.

H. H. A. BEACH.

Correspondence.

THE RECENT DEATH IN THE DENTIST'S CHAIR.

BANGOR, ME., Dec. 19th, 1873.

MESSRS. EDITORS,—It is evident to me that exceptions of the strongest nature may be taken to the wisdom and accuracy of the verdict recently returned by the jury, in the case of the late Mrs. Crie, who died while inhaling a mixture of ether and chloroform in the dental chair of Dr. Eastham, in Boston. The jury came to the conclusion that "her death was caused by the inhalation of chloroform," and took the opportunity to "caution the public against the inhalation of so dangerous an agent as chloroform for the production of insensibility to pain."

I have watched this case with exceeding care, and, if the testimony of the witnesses may be relied upon, I fail to perceive the slightest foundation for such a verdict, or any reason, growing out of the investigation of this affair, which should warrant the sweeping condemnation of chloroform implied by the "caution." My exceptions to the verdict take form, when I assert my

belief that there were three other distinct, and exceedingly probable, causes of death in this case, independent of *direct* death from the action of chloroform.

First, we have the testimony of Mrs. Sawyer, who was present during the operation, and who assisted in the endeavors to resuscitate the unfortunate lady, that she "never saw a woman so tightly laced in her life." Please remember that a *woman* says this, and then imagine what must have been the effect upon Mrs. Crie's organs of respiration. She could not inhale the usual quantity of atmospheric air so very important to be freely mixed with the chloroform, nor could she exhale the normal quantity of carbonic acid gas so vitally requisite under such circumstances, while such *intense* compression would tend to crowd the lungs upon the heart, and impede or, perhaps, *wholly arrest its action*, especially were it a weak one. There are cases upon record where jurors have found, under exactly the same conditions, where chloroform, or any other anæsthetic, has been exhibited, and where death followed, that the result was due to the compression of the respiratory organs induced by tight lacing. I ask, is it not fair to suppose that Mrs. Crie's death *might* have been due to tight lacing and consequent undue compression of the lungs and heart?

Secondly, it is the testimony of several witnesses that Mrs. Crie was of what might be termed a hyper-nervous temperament. Her excessive fear that she might possibly feel pain from the operation, as she did upon a previous occasion, compelled her to refuse the administration of nitrous oxide, or laughing gas, and induced her to beg Dr. Eastham to be "*sure* and give her enough." This request she repeated several times, while he assured her that he would do so. All this goes to demonstrate the excessive fear with which she regarded the operation, and which, in my opinion, should have contra-indicated the exhibition of chloroform, unless such excessive fear could have been previously allayed. No person, save those who have witnessed it, can realize the effect of such extreme fear in women of a highly nervous and sensitive temperament. I have, time and again, seen such women tremble like an aspen leaf in every limb of the body, ending in a faint, at only the mere sight of the instrument. It is in the testimony that Dr. Eastham proceeded with the administration of the anæsthetic, and while she was evidently in a conscious condition, *said* to her, "I am going to extract this tooth now," to which she expressed decided disapproval, but he proceeded to carry his intention into execution, and did so, when she screamed with fear and pain, and immediately went into a spasm, from which she never recovered.

Up to the time of the extraction of the tooth, it is not mentioned that there were any contra-indications developed which forbade further administration of the anæsthetic; but instantly after the operation, she sank rapidly. As is well known, fear has a most depressing influence on the heart's action, and this should be carefully taken into consideration when administering chloroform. How many persons faint, even while preliminary arrangements, in anticipation of an operation, are going forward, and, indeed, how many are the cases upon record, of death from such fright. It would seem, then, but a reasonable supposition that Mrs Crie's death might have been due to the depression of the heart's action, induced by excessive fright, combined with its inability to recover from such depression in consequence of the pressure of the lungs upon it, induced by the tight lacing.

Thirdly, it is in the evidence that the post mortem revealed the fact that the muscular walls of the heart were abnormal in their lack of tone, that they were weak, unusually so. Now, while the condition of this heart alone was sufficient, were it known beforehand, to constitute a contra-indication, yet, when you take into conjunction with it, the natural effect of fear, and the compression of the lungs upon it, is it at all strange that Mrs. Crie should have met with her death as she did? In fact, would it not have been most remarkable if she had lived? It seems to me that it would have been almost a miracle. In view of these facts, why make such a sweeping condemnation of chloroform? I would not be understood as being an advocate of its use, whenever it can be dispensed with, for it possesses a property, in that it is a

local anæsthetic—which ether is not—which makes it more or less dangerous, especially so in abnormal conditions of the heart. Dip the finger in chloroform and it will become sufficiently insensible to pain to perform operations upon it. In all probability, fatal results arise from this very ability to produce local anæsthesia. The blood goes from the lungs directly to the left auricle of the heart, thence to the left ventricle to be propelled through the aorta. The cardiac arteries going to, and supplying, the heart's structure, being the first branches of the aorta, are the first to receive the blood surcharged with chloroform vapor, which may cause local anæsthesia of the heart, and hence cessation of its action, or syncope; the heart's muscular fibres are relaxed and deadened, and thus it follows that chloroform is, so far as the heart is concerned, a specific narcotic, and hence its danger. But in some operations, especially in the oral cavity, where the first step may be of a character starting, in some instances, frightful hæmorrhage, which can be combatted only at the completion of the operation; to have a patient pass from control at such a moment, and under such circumstances (as they are most assuredly liable to do with ether alone), is sometimes a matter of serious concern; and, under such conditions, I maintain that chloroform is indispensable, and those gentlemen who composed that jury—if it be that they were any of them practitioners of surgery—know it just as well as I do, and, therefore, I ask again, why such an *unqualified* condemnation of chloroform? Had they restricted their disapproval to its inhalation for the performance of so simple an operation as the extraction of a tooth, I should have agreed with them heartily. But they did not; they caution the public "against the inhalation of so dangerous an agent as chloroform for the production of insensibility to pain," regardless of the character of the operation to be performed. Such a condemnation is unjust in every sense of the word, since it condemns in advance every surgeon who deems it his duty to administer it, and doubly so when its foundation is suggested by the results in Mrs. Crie's case (where the only reason they had, as it would seem, was the fact that she inhaled it), as it has been the aim of this article to demonstrate.

J. Frederic Babcock, D.D.S.

[We readily publish this letter as a proof of our willingness to hear both sides of the question; but we cannot attach any importance to the objections of our correspondent, with the exception, perhaps, of the first. We do not know on what authority he states that Mrs. Sawyer testified that she "never saw a woman so tightly laced in her life;" according to our special reporter, she said only that the deceased was laced very tightly. With regard to the intense fear, it is entirely an assumption; there is no evidence to show it. The fact that the patient asked thrice to have enough of the anæsthetic shows confidence rather than anxiety. The statement that chloroform is indispensable in severe operations in the mouth, and, we may add, under any circumstances in civil practice, is contrary to all experience in cities where ether is understood and can come only from a want of familiarity with the latter anæsthetic.—Eds.]

Obituary.

B. B. Breed, M. D.

Bowman B. Breed was born in Lynn, on the 29th of February, 1832. He was the son of the late Isaiah Breed, a prominent citizen, who held several important public positions during his life.

Of naturally poor constitution, he early evinced a studious disposition, which was encouraged by his parents. After a preparatory course at Phillips Academy, he graduated at Amherst College in 1853, with much

credit. Choosing the profession of medicine, after pursuing the course and graduating at Harvard in 1857, he spent two years in study abroad.

He was just getting established in practice at Lynn at the breaking out of the rebellion, when his services were tendered to the government and were accepted, he being first commissioned as Surgeon of the 8th Mass. Regiment. He was subsequently commissioned as Surgeon U. S. V., was in charge of two military hospitals in Washington, and afterwards served as Medical Purveyor at New Berne, N. C., Medical Director at Norfolk, Va., and still later was transferred to hospitals at St. Louis, Mo., and Nashville, Tenn.

When the Military Asylum at Augusta, Me., was established at the close of the war, he was appointed Surgeon there, and faithfully and acceptably performed the duties of that office until the destruction of the Asylum by fire. Returning to Lynn in March, 1868, he resumed the practice of his profession; but his health was not equal to the wear and tear of private practice, and about a year and a half ago he relinquished practice, purchased an interest in the *Lynn Reporter*, and entered upon the duties of editor, for which he was well fitted by his literary tastes and fine education.

His health had been gradually failing for the last six months, but no symptoms occurred that called his attention, or that of the eminent physicians that he consulted, to the real trouble.

It was only after he was confined to his bed that he was discovered to be in an advanced state of Bright's disease.

Congestion of the lungs set in on December 13th, and he passed away on the morning of the 16th.

Dr. Breed served as member of the Legislature in 1872 and 1873, was Alderman in 1870, and member of the Common Council for the three years following, being President of that body at the time of his death. He also served upon the School Committee for several terms.

He was a valued member of the Massachusetts Medical Society, of the Masonic order and the Grand Army of the Republic.

He was also an active member of, and worker in, the Central Congregational Church and Sunday School.

As a physician, he was endeared to his patients by his sympathetic nature and faithful service, and he was ever ready to extend a helping hand to the younger members of his profession.

As a public officer, he was always distinguished by conscientious devotion to duty, regardless of personal consequences.

In every relation in life, he merited the most exalted epithet that can be bestowed, that of a Christian gentleman.

The esteem in which he was held by his medical associates is shown by the following letter, adopted by them in place of a formal set of resolutions, which they felt would but feebly express their sentiments :—

"To the family and friends of the late Dr. B. B. Breed:

"The physicians of Lynn are in grief for the loss from their midst, in the prime of life, of a very dear and faithful brother.

"We knew and appreciated his worth as a learned and skilful physician and surgeon, and were always cheered by the presence of so genial, generous, and benevolent a Christian gentleman.

"For his good words, and good works, and brotherly kindness, remaining uncancelled, we owe a debt to his family, which we will acknowledge while we live, and, as far as possible, repay.

"DEAR FRIENDS:—Be pleased to consider us as your debtors, and call on us, or any of us, for any kindness that we may be able to show you.

"We assure you of our earnest sympathy, and pray that you may find much greater comfort and support than it lies in our power to afford.

"Affectionately yours, in behalf of the Lynn Medical Society,

DANIEL PERLEY
J. G. PINKHAM } *Committee.*"
J. O. WEBSTER

Lynn, December 17, 1873.

J. O. W.

Medical Miscellany.

We are happy to announce that the Board of Aldermen has refused Jourdain a license for his so-called Gallery of Anatomy.

"The practice of medicine followed as a mere business is the meanest of all vocations."—*New York Medical Record.*

A Charitable Quack closes his advertisement as follows:—"N. B. Patients with means need not stay away. I will do just as well for them as though destitute."

"Sweet Spirits of Nitre."—Of its "medical" value the *London Lancet*, of Dec. 6th, says:—"It is probably almost entirely devoid of those diaphoretic and diuretic properties with which is was formerly credited." And further:—"Whether made in the old fashion or the new, it is of little worth; but when made by the blundering old process it possesses absolutely no value whatever."

Russian Caviar.—Among the more recent advances in the way of adulteration of articles of food, we notice that a compound has been extensively sold in Berlin under the name of "Russian caviar," which an analysis proved to be simply *sago*, saturated with some black liquid, the exact nature of which could not be made out.

Cholera.—Forty-two persons were attacked with cholera in Berlin between October 23d and November 20th. The disease is also increasing in Munich, eleven fresh cases being reported on the 20th ult.

Arrested Development of the Eyeball.—A child, fourteen days old, was brought to the Westminster Ophthalmic Hospital, having a cystic swelling, the size of a walnut, over the left eye, noticed a few days after birth. The contents of the cyst were evacuated with a grooved needle, but, inasmuch as the cyst speedily became refilled, it was necessary to resort to a seton. It was ultimately discovered that the eyeball was undeveloped, a rudimentary stump occupying the cavity.

Formula for Sick Headache.—℞. Granulated muriate of ammonia, one teaspoonful; acetate of morphia, one grain; water, one half pound. M. Dose for an adult, two teaspoonfuls every ten minutes till relief is obtained.

Pyæmia.—Prof. v. Nussbaum recommends burning the bone and its marrow with an iron heated to a white heat after amputations of the limbs, in order to prevent the occurrence of pyæmia. He has employed this method with success nine times during the past six months, pyæmia prevailing in the wards quite as extensively during this time as in the previous year, when two-thirds of the amputated patients succumbed to this disease.—*Communication to the Gesselschaft fur Chirurgie.*

Congenital Chignon.—Dr. Wm. Elmer reports a case of congenital *chignon*, the wearer of which fortunately died a few days after birth. An autopsy showed the abnormal appendage to be a sack proceeding from a foramen below the occipital bone, lined with the brain membranes, and filled with a gelatinous fluid.—*Transactions of New Jersey Medical Society.*

The Homœopathists on Hypodermic Injection.—The "Homœopathic Academy of Medicine" of Chicago, recently passed the following resolution:—

"*Resolved*, That we, the Chicago Academy of Homœopathic Physicians and Surgeons, in view of serious and often fatal results from the hypodermic injections of morphine and other drugs, denounce this method as being unnatural, barbarous, and highly dangerous."—*Medical and Surgical Reporter.*

THE position of medical adviser to the tribe of Tulare Indians, in California, is vacant. The late incumbent had intrusted to his care a number of sick Indians, all of whom, unfortunately, died, upon which a grand council was held, and the medicine man was condemned to death and promptly executed.—*Medical and Surgical Reporter.*

RELAXATION OF THE SPHINCTER ANI AN INDICATION OF INTUSSUSCEPTION.—Dr. J. Schültz, of Prague, has observed, in three separate instances, that intussusception of the intestine is accompanied by complete relaxation of the external and internal sphincter ani. In this condition, two fingers can be introduced into the rectum, without the exercise of force, and without inflicting any unpleasant sensation upon the patient.

DIRECT EXAMINATION OF THE URETER IN A CASE OF SUSPECTED CALCULUS—The new method of rectal examination was recently made use of by Dr. T. G. Morton, in a case of suspected calculus of the ureter. The line of the ureter, and the region of the kidney were found normal, while the aorta and iliac vessels were readily distinguished. Although no calculus was discovered, the manipulation of the intestine appears to have induced free dejections, which were immediately followed by relief of the symptoms. —*Philadelphia Medical Times*, Dec. 20.

CORNISH RIVERS.—The Rivers Pollution Commissioners report that the production of white arsenic, and the poisoning of the rivers with it, is carried on in Cornwall on a gigantic scale. Speaking of one mine, they say, "There leaves this single mine every month an amount of white arsenic competent to destroy the lives of more than 500,000,000 of human beings. We saw stored in its warehouses, ready packed for sale, a quantity of white arsenic probably sufficient to destroy every living animal upon the face of the earth. It is, perhaps, still more startling to reflect that there is at present no efficient law to prevent manifold this amount of this deadly material from being cast monthly into therivers and water courses of this country; not, it is true, to expend its poisonous energy at once, for the mundic is insoluble in water, but, by its slow decomposition to render rivers so treated poisonous and uninhabitable by fish for many generations. —*London Medical Record.*

NOTES AND QUERIES.

HAVE any remedies, for the removal of ascarides, been discovered that were unknown half a century ago? Are injections of ether beneficial? What is the formula for their use?

ANTI-ASCARIDES.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and Towns for the week ending December 20, 1873.*

Boston, 115—Charlestown, 20—Worcester, 17—Lowell, 18—Milford, 4—Chelsea, 5—Cambridge, 18—Salem, 9—Lawrence, 12—Springfield, 7—Lynn, 12—Fitchburg, 7—Newburyport, 6—Somerville, 3—Fall River, 18. Total, 271.

Prevalent Diseases.—Pneumonia, 35—consumption, 33—scarlet fever, 27—typhoid fever, 14.

Of the deaths from scarlet fever, ten were in Fall River, six in Boston and five in Charlestown.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 27th, 126. Males, 59; females, 67. Accident, 5—apoplexy, 1—inflammation of the bowels, 2—disease of the bladder, 1—bronchitis, 6—disease of the brain, 4—cancer, 5—cyanosis, 1—cholera infantum, 1—consumption, 19—convulsions, 4—croup, 1—debility, 5—dropsy, 1—dropsy of the brain, 1—drowned, 2—exhaustion, 1—erysipelas, 3—scarlet fever, 15—typhoid fever, 5—disease of the heart, 4—hæmorrhage, 1—intemperance, 1—disease of the kidneys, 2—inflammation of the lungs, 9—marasmus, 4—measles, 1—murder, 1—old age, 2—paralysis, 1—pleurisy, 1—peritonitis, 4—poisoned, 1—pyæmia, 1—rheumatism, 2—suicide, 1—tumor, 1—inflammation of uterus, 1—whooping cough, 1—unknown, 2.

Under 5 years of age, 46—between 5 and 20 years, 15—between 20 and 40 years, 27—between 40 and 60 years, 20—over 60 years, 18. Born in the United States, 79—Ireland, 36—other places, 11.

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Original Communications.

THEORY OF VITALITY AND ITS RELATIONS TO MATERIA MEDICA.

By W. R. DUNHAM, M.D., Westmoreland, Vt.

An Address delivered before the Connecticut River Valley Medical Association, at Brattleboro', Vt., Oct. 29th, 1873.

UNDER this title, I propose to call your attention to the philosophy involved in the *modus operandi* of medicines. I do not propose to refer to all of the details connected therewith as principles involved; in fact, many very important philosophical problems must be passed by without notice, as time will admit of but little more than a reference to the leading principles.

In pursuing the duties of our selected avocation, we are required to master a certain amount of knowledge entitled theory and practice. There is, at the present day, much distrust relative to the applicability of many of our theories that help to make up the aggregate of our medical education.

I remember an expression made by Paul Chadbourne, Professor of Chemistry at that time in Berkshire Medical College. In addressing the students on the accuracy of our knowledge of chemical science, he remarked that "what you learn in this room you are to keep forever, but what you learn up stairs (which was the room occupied by the Professor of Theory and Practice) you will have to learn all over again, every ten years, so uncertain are the theories that govern our practice." I think we all endorse those sentiments more or less, which is equivalent to admitting that our thoughts are not always in harmony with the philosophy of cause and effect; or, in other words, our early ideas are not all true ideas. There is an individual and professional pride that chooses not to always confess, to each other, or to the public, that there is much possibility that we are very far from correct in the theories we choose to adhere to; this is very natural, for our prosperity and influence are based on the presumed accuracy of our knowledge. It is right that we should have this pride, and it is both right and very important that we should possess what we profess. It is rational to assume that there is a reason for all things, and that if we possessed a *correct* theory of the practice of medicine there would be a permanency of thought; and, also, that there can exist but one true code of

fundamental principles involved in a true science of medicine. On this occasion, it will be harmless to indulge our reason for a brief time and consider whether all of our doctrines are consistent, and, by thus investigating the subject, it is not prejudice but principle that belongs to science; and it is not our duty to ask if it is pleasing or palatable, but simply if it is true.

If we admit that the science of medicine is not completely unfolded, and that more tenable premises are desirable, we must also admit, if this essay is unavailing, that the object is certainly commendable to direct our thoughts in pursuit of a better knowledge of those forces we call vital, which we are required to aid and modify in the treatment of disease. Thus, feeling that there is a sufficient cause for reverting to this subject, I will not assume that my doctrine is infallible, but present my views in that manner which to me seems consistent. In order to obtain a correct starting point, we will trace back what little we know about this universe to its ultimate condition, to that remote beginning behind which our special sensibility fails to grasp an idea. And on this first page of nature's book we find that beginning summed up in a power called force, and in elements whose physical properties we variously describe. These several forces act on the elements, the elements do not act on force. Set this down as a first principle, and whenever you get into a theoretical obscurity go back to first principles, to a principle about which there can be no possibility of a doubt. Whenever we can advance one step in perfect harmony with this interpretation, it is well to move onward, and we can with much assurance accept the interpretation that all the elements are acted upon by chemical force, and only a limited number, less than twenty, are acted upon by vital force, in that synthesis that gives form to vegetable and animal organisms.

Thus, we have one grand distinction of the application of those two forces; one, the chemical, acts on all the elements to produce forms and render forms formless, while the vital acts on only a limited number for the purpose of creating forms, and never renders them formless, the chemical force undoing what the vital had previously done. I repeat, that vital force acts on only a limited number of elements for the purpose of creating forms, but acts in relation to all elements for a definite specific purpose that will be considered in due time.

The doctrine of physiology is really the subject taught of the various duties that are performed by this vital force in the normal play of all the functions; yet many medical writers inform us of the manner which food acts on the human system, how milk acts on the stomach, and various other nutritive articles act on the different parts of our organism, while the fact is, instead of nutritive material acting it is merely passive, and is acted upon by, and becomes a part of, the organic body.

This same force removes from our bodies the worn-out tissue. Directed by instinct, it encounters another struggle, that is accomplished without the aid of our wisdom; and this struggle is termed *vis medicatrix naturæ.*

What are we to understand by it, and what does this power do? In all ages, there has been a recognition of a power, on the part of organic life, to manifest an ability, limited in extent, to preserve its own individual organism. Therefore we must concede this power, for we have reason for so doing, and attribute to it the governing principle, termed instinct, but not reason. This law of special organic vital instinct affords a text for volumes of thought; yet, on this occasion, we have only time to refer to it.

We will consider the ability of this force to construct our organism out of compounds whose elements are organic, and to remove the waste material, repair mechanical injuries, and exert special efforts to eject foreign material. It is rational that there should be endowed, to the ability of organic power, a *vis medicatrix naturæ;* otherwise, unobserved by our special senses, foreign material would, in time and by accident, so fill up the channels of our organism that mechanical impediments would prematurely terminate our mortal career. Thus comes this wise provision on the part of organic instinct to recognize the difference between food and those substances the presence of which is detrimental to the well-being of our organism, and to manifest an inherent power to eject, by vomiting, purging and sweating, those substances not proper for assimilation.

Thus far, we contend that vital force has, by its instinctive power, acted on the food, with a view to self-preservation, an action which we call physiological; and also this same force, with a view to self-preservation, has ejected foreign material, an action which we call pathological. This important and immutable instinct that presides over the organic being has no object in view but self-preservation; its ordained duty, assigned by the Ruler of the universe, was just that, nothing more, nothing less. And just how this force behaves, under all circumstances, comprises the great fundamental principle and basis of medical science.

What is the difference in principle, or philosophical distinction, between pathological action, the *vis medicatrix naturæ,* and the so-called action or *modus operandi* of medicines? We will introduce a problem for consideration, by supposing a boy has swallowed a few buckthorn berries. Do the berries act on the bowels, or do the bowels act on the berries? What is the principle involved? Do the berries act by an inherent power of their own? If so, do they act on the structure of the bowels, or on the function of the bowels? We have no knowledge of a change of structure; therefore, we infer that, if they acted in any manner, they must have acted on the function, for that function was accelerated and made violent. Therefore, if the berries acted on the function, we ask what

is function? It is merely action; consequently, they acted on action, which is a poor termination of philosophical language. We admit that the berries occasioned an action, yet they have no inherent power, but are the products of an inherent power peculiar to vegetable life? So is food the product of inherent power, peculiar to vegetable life; and these products are acted upon by the life force of our organism. One is appropriated harmoniously, and the other expelled more or less violently.

It may be said, that this vital theory opposes our established theory of the action of our medicines, and that it does away with medical properties, and so our drugs become inert and useless. We confess that it does oppose our established theory of the action of medicines, but we deny that it interferes with our employment and use of medicines. Does it do away with medical properties, and render our drugs inert? I ask what law of nature, what experimental procedure enables us to determine the existence of a medical property? What is a medical property? Prof. Wood, of the University of Pennsylvania, and assistant author of the United States Dispensatory, defines medicines to be "substances capable of producing, as an ordinary result, modifications of the vital functions, by their own inherent power." This *inherent power* of the medicine, so called, is the medical property that acts on the skin, the stomach, the bowels, the circulation. Thus, a medical property, according to this philosophy, is an inherent power of the medicine to act; and that particular disturbance occasioned suggests the special name of property.

We claim that the term inherent power, as applied to medicine, is an error of interpretation, and that the inherent power is all on the other side. Therefore if a medical property is this certain attributed power, by virtue of medical philosophy, and this philosophy is erroneous, and in the medicine there is no power, it is well to again ask, what is a medical property in the language of the natural philosophy of vital force? Let us go back and retrace our premises, systematically, yet briefly; we will make three divisions of elements, compounds, or material, to and with which the vital forces behave as follows:—The first class are nutrients, and are acted on for the purpose of being assimilated. The second class consist of material that is termed by the profession, inert; that is, it neither contributes nutriment nor, by its presence, occasions any special vital disturbance in any direction, but merely abides the course of time and becomes eliminated by the undisturbed depurative functions. The third class comprises that vast array of material called medicine and poison, which, by its presence, occasions special vital efforts, strictly analogous with the principle involved in *vis medicatrix naturæ*. The different manner in which vital force behaves in relation to this class affords that knowledge by which we know the use of any particular medicine. The degree of incompatibility is modified by the quantity, and may be, instead of mildly alterative, violently poisonous. There-

fore, a medical property, when placed under the microscope of natural philosophy, may properly be defined thus: A substance, the presence of which within the jurisdiction of the vital force, is so incompatible with the required wants of physiological purposes, that a special effort of vital force is manifested, with a view to expel it.

There is at this time another question that suggests itself to our notice; if medicines have no inherent power, by what law are we to claim their utility in the treatment of disease? As the profession have no established theory of disease, I will omit the use of the term, disease, and confine my language to vital force. Let me again quote from Prof. Wood's definition of medicines:—"Substances capable of producing, as an ordinary result, modification of the vital forces." We have previously referred to the organic vital force as being involuntary and endowed with instinct only; therefore, this instinctive force may do an injury by its violence, it may act very injudiciously, even with positive detriment to the best interests of the tabernacle it desires to defend or maintain. This fact, this instinct without wisdom, creates the necessity for a medical profession, to develope our reason and to enable us to comprehend when it is proper to modify vital force or function, with a view to prolonging life; and medicines afford the means whereby we aid and direct vital force. This term, inherent power, as applied to medicine, is the language or interpretation of appearances, but not the language of philosophical truth.

It may be asked, what difference does it make whether one or the other acts? I will say, if we have a medical science founded on immutable principles of natural law (and it must be so founded, otherwise it is no science), and yet it makes no difference whether we base our calculations for a result on an inherent power residing in the medicine, or in the human system, then we must inevitably deteriorate into a state of degenerate philosophers of professional insignificance, to compete with quacks and patent nostrum venders. This inherent power is either on one side or the other; its source is not interchangeable; and when studied with the idea that it is latent in the medicine, the whole subject becomes involved in a medley of crude thoughts that tend to empiricism. When studied with the idea that it is latent in the human system, our theories become illuminated and our ideas transparent, and we are possessed of a quiet assurance that we are travelling on the highway of science. To me, it seems that there is no problem in the annals of science so important as a correct understanding of the source and law of this inherent power.

It may be advocated that the long time during which this doctrine of inherent power in medicine has been inculcated, and the vast array of talent that has already concurred in its adoption, is sufficient to place it beyond all controversy, and that we must accept it as a correct scientific interpretation. This is a problem of natural law

which conventional approvals neither do nor undo; yet we must admit that ages of thought in that channel, and theories that lie upon the book-shelves of every physician have instituted ideas and given modes to our thinking. Moreover, the very thoughts that emanate from our schools of science largely predominate and give color to the national mind, that makes up, moulds and controls that sense of duty which we call belief.

The adoption of the theory that there is an inherent power in medicine has already had a blighting effect upon the influence of the profession. It has taught the masses that the great secret of success was hidden in the mysterious potion; and if the application of this power failed, we must search for other inherent powers in new compounds. Thus, to-day, the great leading idea, in the profession and out of the profession, is to find a new compound, with new inherent powers, which shall act on our organic system. No matter what the physician thinks to-day about the soundness of this philosophy of inherent power, the multitude are firm believers in it, and in that belief quackery finds its spacious fields of labor, and the quack heralds all his medical properties to all the rest of mankind. The masses are all ready to believe it and to try it; and they sing praise to his name, for the indefatigable labors and unfathomable research that have brought to the surface this wonderful inherent power of eradicating disease; and, in the meantime, they berate the regular physician for his stupidity. It is natural that the people should believe this quackery more or less, for medical schools and medical men have been talking and training the people into this channel of thought, and the legitimate result is that quackery must succeed. Thousands whom we call intelligent people will place themselves, unhesitatingly, under the treatment of the most ignorant quack and confess their knowledge of his ignorance; and yet they defend the man of their choice by the argument that his medicines have new and wonderful powers to eradicate disease. It is not the man, but the medicine that they believe in. And again, the prevailing opinion of a mysterious "inherent power" in alcoholic liquors that contributes to the well-being of the functions of organic life, and effectually performs, by virtue of its ability, wonderful exploits in removing the causes of disease, to the influence of this opinion among the people is due a conscientious purpose among physicians which forbids giving aid to any means for the suppression of intemperance, and which, in fact, becomes the most formidable barrier against reform in the use of intoxicating liquors as a beverage. Moralists tell us that there is no question before the American people to-day that is of so much importance as the temperance question. It seems to me that there must be something wrong in the interpretation of a science when its doctrines conflict with the harmonious development of a well-governed people.

But let us take the other side of the question, and adopt the theo-

ry that vital force is always the "inherent power," in health and disease; let us turn our attention to the study of vital force, and how it governs itself in self-limited disease, learn the full force of the term "instinct," which legitimately belongs to this vital force, which in itself is a subject freighted with more wisdom than becomes the lot of any quack to comprehend. Let us become familiar with vital force as manifested by the three vital properties, contractility, sensation and sensibility, and with the law of sensation when manifested under the term irritability; with its toleration of long-continued medicines, and how it acts when the causes are relatively large or small, and just where reason should interfere to modify, with medicines, this force for the well-being of the patient. Let us comprehend that vital force, acting in relation to things abnormal, in its peculiar manner, furnishes us a problem which, when solved, gives us an ability to maintain a rational *theory of disease.* Let us learn to expect no more of medicine than the law of its usefulness; to rate it at its real value. We shall then find the medical profession elevated to a position that commands respect and influence for the knowledge it possesses of the great law of force, as ordained by the hand of our Creator, a knowledge which becomes a specialty of acquired wisdom, above the reach of quacks, and which carries with it an influence that precludes the possibility of any reposing of the people's faith upon a quack doctor, any more than upon a quack chemist or a quack astronomer.

Surgery of the Aborigines.—The following occurs in an address on surgery, before the Canadian Medical Association, by Dr. W. H. Hingston:—

The aborigines had their surgery—simple but effective—to which their usurpers were sometimes forced to have recourse. Contused wounds and bruises were treated by cold douches from springs and running streams; and suppurating wounds with the bark of the mucilaginous slippery elm (Ulmus flava), and basswood (Silia), and the resinous bark of the tamarac (Larix americana)—all excellent emollient and stimulant cataplasms; and ulcers were stimulated to granulation by the inner wood and berry of the juniper (genus juniperus). They reduced dislocations by main force, and also, it would appear, by a rotary method, which seems somewhat like that introduced to the profession by that distinguished American surgeon, Nathan Smith. Fractures (which rarely occurred among them) were carefully set, and splints of cedar or broom, ingeniously padded by the squaws with leaves or grass, were bound upon the limb with withes of the young birch (genus Batula); and amputations were performed at the joints with knives of flint or jasper (and in some places of copper), polished and keen as steel*—and spouting vessels were seared, and hæmorrhage arrested with stones heated to redness. These practices are still continued among the tribes far removed in the interior.—*Canada Medical and Surgical Journal.*

* The preparation of these instruments was oftentimes the work of years.

Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By E. S. Wood, M. D.

(Concluded from page 11.)

Toxicology.

Detection and Action of the Metallic Poisons.—J. L. Verryken has published *(Jahresbericht über die Fortschritte der Pharmacognosie, Pharmacie und Toxicologie,* 1873) a large number of experiments and studies concerning the action of the metallic poisons upon the system, and their detection when mixed with organic substances, and arrives at the following conclusions, based upon purely chemical considerations, concerning the changes which they undergo in the system.

First, that the metallic poisons combine with the animal tissues with which they come in contact, an albuminate of the metallic oxide being formed.

Secondly, that that portion of the poison which gets into the blood unchanged, combines in the same manner with the albumen of the blood, and forms a compound analogous to the albuminates of calcium and magnesium, described by Fokker, and alluded to in the last semi-annual report.*

Thirdly, that these metallic albuminates are passed into the blood by endosmosis under the influence of electricity, and, in the same manner, from the blood get into the organs where they are deposited.

Verryken considers that these albuminates, when formed within the system, have the same composition as the precipitates formed by bringing the metallic salt in contact with albumen out of the body. Concerning the exact composition of these precipitates, he differs from many authorities, but agrees with Mulder. In the case of corrosive sublimate, for example, Orfila considered the precipitate formed with albumen to be a compound of albumen with calomel; Lassaigne, to be one of albumen with corrosive sublimate; Dorvault, of albumen with a sesquichloride of mercury, while Mulder and Verryken consider it to be one of albumen with mercuric oxide. The latter has made analyses of the precipitates produced by the different metallic salts with albumen, and has found them to have the following composition. The precipitate with corrosive sublimate has the formula HgO, C_{48} H_{36} N_6 O_{16}; with lead salts, 5 PbO, C_{48} H_{36} N_6 O_{16}; with copper salts, $3CuO$, C_{48} H_{36} N_6 O_{16}; with silver salts, 2 AgO, C_{48} H_{36} N_6 O_{16}; and with platinum salts, $5PtO$, C_{48} H_{36} N_6 O_{16}. All of these precipitates were obtained by adding the metallic salt in solution, drop by drop, to a solution of albumen, always being careful to keep the latter in excess, a very necessary precaution, since a mixture of the albuminate with a compound of albumen with the acid of the metallic salt added is thereby prevented. It was noticeable, also, that the precipitate had the same composition, whichever salt of the metal was used as the precipitating agent.

He was led to the third conclusion, that the passage of the metallic albuminate takes place by endosmosis under the influence of electricity, by the fact that a solution of albumen or gum can be made to pass

* Vide Journal, July 3, 1873, p. 6.

through animal membranes in a dialyzer or endosmometer in much greater quantity, if subjected to the action of the electric current, than under precisely similar circumstances if electricity be not used. Even oil passed through the membrane from an emulsion of oil and gum under the influence of the current, whereas no trace of it could be detected in the outer fluid if no electricity were applied. The electrodes were so arranged that the current passed from the outer to the inner fluid. Hence the endosmosis of these usually non-endosmotic substances takes place under the influence of electricity, and most readily in the direction contrary to that of the electric current.

The author has also adopted a new method for the destruction of the organic matter in searching for metallic poisons in animal fluids and tissues, and criticizes the methods generally in use, especially that of Fresenius and Babo (by means of hydrochloric acid and the chlorate of potassium). The objections to this method are, that a portion of the poison, especially in the case of arsenic, is liable to be lost by the formation of volatile chlorides; that the resulting solution is not perfectly colorless; that the solution still contains a considerable quantity of organic matter; and that sulphuretted hydrogen or the sulphide of ammonium produces in this solution a precipitate which, in addition to the metallic sulphide, always contains organic sulphur compounds, from which it is often very difficult to separate the metallic sulphides.

He avoids these inconveniences by destroying the organic matter, by heating in an ignition tube, with a constant supply of free oxygen to the heated mass. The apparatus used is similar to that for elementary organic analysis. The advantages claimed for this method are, its simplicity, that there is absolutely no loss of material, and that a much smaller amount of material is necessary, only five or ten grammes, while with the ordinary methods one or two hundred grammes are required. By this method he has detected copper in an organic mixture, which contained only one part of the sulphate of copper in 40,000 of mixture, lead in ten grms. of a mixture containing one part of the acetate in 50,000 of substance, mercury which existed in the same proportion, and also arsenic and antimony in eight or ten grms. of a mixture containing only from $\frac{1}{20000}$ to $\frac{1}{50000}$ of arsenious acid and tartar emetic.

A modification of Marsh's apparatus is also recommended, the stopper of the flask being provided with three tubes instead of two. The third tube is intended to supply pure hydrogen gas from a gasometer. By this means, the size of the flame can be kept the same, and the air can be expelled from the apparatus much more rapidly.

Detection of Digitalin.—E. and G. Homolle (*Jahresbericht über die Fortschritte der Pharmacognosie, Pharmacie und Toxicologie*, 1873) contradict the statement made by Tardieu, that the chemist, by means of chemical tests alone, cannot state positively as to the presence of digitalin in animal tissues, but must rely upon the physiological test. They give a method for isolating it in a state of tolerable purity. This is a comparatively easy task, if we have a syrup, tincture, or extract to deal with, but is very difficult in the case of the contents of the stomach or other similar substance. On account of the impossibility of isolating digitalin in any quantity by means of Stas's process, the authors recommend that, in searching for the vegetable poisons, about one-half of the material at hand be examined by Stas's method, and the

rest reserved for the analysis for digitalin, if the other alkaloids are found absent. If, however, we have any reason to suspect the presence of digitalin, the largest portion of the material should at once be examined for it.

The test which is especially to be relied on, is the production of an emerald green color by means of hydrochloric acid,* and should be performed in the following manner. Upon a small particle of the substance, in a porcelain dish, drop two or three drops of pure hydrochloric acid, and warm gently. The green color comes immediately, but lasts only twenty-four hours if the amount be small. The green product of this reaction can be preserved, however, by dissolving it in a drop of chloroform and allowing it to dry. The color of this residue remains permanent.

The non-precipitation of the suspected substance by platinic chloride or the terchloride of gold gives us very important negative evidence, and permits of the elimination of almost all the alkaloids. The bromine reaction is also a very important one, but requires a considerable amount of the substance.

The process adopted by them in isolating digitalin from animal fluids is as follows. The fluid should be filtered, the clear filtrate rubbed up with the hydrate of lead, treated with an equal volume of 95 per cent. alcohol, filtered, and evaporated at a low temperature. When the residue has a syrupy consistency, it is shaken two or three times with an equal bulk of chloroform, which can be removed by a pipette, and allowed to evaporate spontaneously. If any fat remains in the residue, it can be removed by washing carefully with a little benzine, which acts but slightly on digitalin.

Digitalin is isolated from the tissues by nearly the same process, except that they are first extracted by shaking with 95 per cent. alcohol, the alcohol shaken with the hydrate of lead, filtered, the filtrate evaporated at a temperature below 40° C., the residue washed carefully with benzine to remove the fat, and then treated in the same manner as the alcoholic residue in the case of the fluids.

Hyoscyamin, as formerly obtained, is in the form of a mass more or less colored. By subjecting this substance, however, to a careful distillation in a current of hydrogen, M. G. Merck (*Journal de Pharmacie et de Chimie*, July, 1873, from *Neues Repertorium für Pharmacie*, Feb., 1873) has been enabled to obtain the pure alkaloid in the form of a colorless, oily liquid, resembling conia in appearance and odor. It is soluble in alcohol and ether, slightly soluble in water, and incompletely soluble in chloroform and benzine. When exposed to the air, it rapidly becomes brown, thicker in consistency, and has a disagreeable odor. It has a very alkaline reaction, and neutralizes acids to form very soluble salts, some of which were obtained in a crystalline form.

Investigations upon certain Alkaloids.—Heinrich Struve (*Fresenius' Zeitschrift*, 1873, ii. p. 164), in testing substances extracted from the organs of a body after death, discovered that solutions of colchicin, when exposed to direct sunlight, undergo such a change that the usual tests will no longer serve to detect that alkaloid. The substances tested were contained in two bottles, marked, respectively, "nicotin" and "colchicin." Tests applied to the former substance by a second

* Vide JOURNAL, July 10, 1873, p. 35.

chemist confirmed the presence of nicotin, while the latter responded to none of the tests for colchicin, although it had at first reacted perfectly with the reagents applied. In seeking for an explanation of this fact, Struve prepared two solutions of colchicin, and placed one of these in the dark, while the other was exposed five weeks to the direct rays of the sun. The specimen kept in the dark preserved its properties perfectly, while that exposed to the sun's rays no longer responded to the proper tests, and the colchicin thus treated lost completely the properties of an alkaloid.

Phospho-molybdic Acid as an Alkaloid Reagent.—This acid, so long well known as a reagent for ammonia, has also been known as a precipitating agent for the alkaloids, which are analogous in composition to ammonia, but the precipitates produced with the different alkaloids resemble each other so closely that it is impossible to distinguish certainly between them. The following results, however, obtained by Struve *(Ibid.)*, lead us to hope that it may prove a very valuable reagent in alkaloid chemistry, and that we may be able by its means to separate the alkaloids from impure solutions, and distinguish between them by the application of other and characteristic tests to the precipitates produced.

With brucia, it produces a yellow precipitate which, when treated with concentrated sulphuric acid, colors the acid red, which color changes quickly to a yellow. If sulphide of ammonium be added to this solution, sulphuretted hydrogen will escape, a dark brown precipitate be formed, and the fluid will become violet. Both of these reactions are characteristic of brucia.

With strychnia, it also produces a yellow precipitate which gives, with sulphuric acid, a yellow solution. This solution shows the characteristic play of colors due to strychnia, if treated with a crystal of potassic bichromate. If the precipitate is dried, it dissolves gradually in sulphuric acid with the production of a violet color. This solution also gives the play of colors with potassic bichromate.

With colchicin, it produces an orange-colored precipitate, soluble in concentrated nitric acid, with the formation of the usual violet color, which changes rapidly to a blue. The addition of water to this solution changes it to a yellow, which becomes red if rendered alkaline with liquor potassii. The dried precipitate is a greenish-brown mass, which dissolves in liquor potassii to form a yellow solution, while blue molybdic oxide separates.

With morphia, it forms a yellowish-brown precipitate, soluble in sulphuric acid, producing a dark blue solution, which, by warming, changes to a dark brown. After cooling the sulphuric acid solution, a drop of nitric acid renders the color lighter, changing it to a reddish brown. The precipitate reacts with iodic acid and starch in the familiar way. Liquor potassii produces with the precipitate a blue color, which changes quickly to a brown and then to an orange, which remains permanent, and is even rendered plainer by evaporation, orange-colored drops, which can be examined microscopically, forming in the liquid when concentrated. This last test will serve to detect morphia when mixed with quinia.

The Action of Sulphuric Acid and Sugar on some Alkaloids.—R. Schneider gives the following reactions *(Fresenius's Zeitschrift*, 1873, ii. p. 218, from *Poggendorf's Annalen*, Bd. 147, p. 128).

Morphia, if mixed with six or eight parts of sugar, and brought in contact with a drop of concentrated sulphuric acid, produces an immediate purple-red color. This color remains unchanged from one-quarter to one-half an hour, then gradually changes to a bluish violet, then to a bluish green, and, finally, to a dirty, yellow color. If moistened with a little water, the above changes take place rapidly. This reaction will detect from 0.1 to 0.01 of a milligramme. If it is necessary to test a solution for morphia, the best way is to dissolve as much sugar in a drop of the fluid as the latter will take up, and bring this solution into contact with a drop of sulphuric acid placed at its side. At the point of contact of the two drops, a rose-red color will be developed, more or less deeply tinged, according to the amount of morphia in the liquid.

Codeia behaves in the same way as morphia, only the test is more delicate, if a little water be added or the sulphuric acid is not so concentrated. The color begins to diminish after the lapse of one-half an hour, changing first to a dirty, bluish green, and, finally, to a yellowish brown.

Morphia and codeia can, however, be distinguished from each other, or, rather, separated from each other, by shaking an alkaline solution with chloroform, which will remove the codeia, but leave the morphia.

Narcein and narcotina show no characteristic reaction, and the same is true of the cinchona bases, strychnia, brucia, atropia, colchicin, emetia, and picrotoxin.

Aconitia treated in the above manner produces, at the point of contact of the two liquids, a beautiful rose color, which passes rapidly to a violet, and, finally, to a brown. This might be mistaken for the color produced by morphia or codeia, but the aconitia can readily be separated from morphia by its solubility in benzine or chloroform from an alkaline solution, aud from codeia by the ready solubility of the latter in water. This reaction for aconitia is a valuable one, as it is the only chemical test for it.

Delphinin, if rubbed up with a drop of concentrated sugar solution, and a drop of sulphuric acid be allowed to fall in the centre of the solution, produces a yellow spot, which speedily becomes yellowish brown, and is gradually surrounded with a dirty green border. If, at this stage, a drop of water is dropped into it, the brown spot is converted into a green. This green color, which changes quickly to a brown, is very characteristic of the action of delphinin.

Chloroform as a Solvent and Reagent for the Vegetable Poisons.—Experiments of J. Nowak *(Jahresbericht über die Fortschritte der Pharmacognosie, Pharmacie und Toxicologie,* 1873) show that chloroform will remove from slightly alkaline solutions, quickly and completely, the following poisons :—Strychnia, quinia, quinidia, cinchonia, caffein, theobromin, emetia, atropia, hyosciamin, aconitia, veratria, physostigmin, narcotina, codeia, thebaia, nicotia and conia. Brucia, colchicin and papaverina are removed somewhat more slowly, sabadillin only after warming, and narcein only in very small quantities by chloroform from alkaline solutions. Picrotoxin is dissolved from acid solutions much more rapidly than from alkaline ones. Morphia and solania are removed neither from acid nor from alkaline fluids by chloroform.

All of the above substances, which are removed from alkaline fluids

by chloroform, can readily be separated from the latter, by shaking it with acidulated water, while the impurities, which have also been dissolved by the chloroform, remain.

Thus we have a very valuable reagent in chloroform, for obtaining these vegetable alkaloids from animal tissues in an almost perfectly pure state, and, when weighed amounts have been mixed with animal tissues and fluids, Nowak has been enabled frequently to isolate the entire amount in a state of great purity.

Bibliographical Notices.

Skin Diseases: an Inquiry into their Parasitic Origin, and Connection with Eye Affections, &c. By Jabez Hogg, Surgeon to the Royal Westminster Ophthalmic Hospital, &c. London: 1873. Pp. 108.

"My apology (if one be needed) for the publication of this *brochure*," states the writer of this book in his preface, "is simply that I have been unable to supply the demands of friends for copies of my papers 'On the Vegetable Parasites infesting the Human Skin.'" How the author's friends feel about its publication, we have no means of knowing; but we do feel that the medical profession, to which it is now presented, should not receive such a book, even with an apology. A writer who professes in these days to instruct others should have full knowledge of his subject, and judgment wherewith to manage it. Dr. Hogg seems to lack both.

His views may be briefly stated, as follows: The vegetation found in such affections as favus, ringworm, &c., is a secondary product, and they are due to a deranged state of health. They are, moreover, scarcely, if ever, cured by destroying the parasite, nor are the parasites even universally present in these affections.

These opinions are outside of the province of criticism, because there is no truth in them. Their answer may be found in the writings of all recent and competent observers; but farther notice of them here would take the time of reader and reviewer, and they are not worth it.

Dr. Hogg has also made experiments in the culture of the parasitic fungi. They were conducted much in the same way as peas are sown; and his deductions from them are as intelligent and reliable as those of the gardener who, finding weeds springing up with his peas, should attribute the whole growth in his beds to the seed he had planted.

If the reader cares to know more of the opinions of one so loose in his own observations, and so ignorant of those of others, who should have been his teachers, he may also find in this book writings concerning the germ theory of cholera; dust and disease, &c. J. C. W.

Thinkers and Thinking. By J. E. Garretson, M.D. (John Darby), Author of "Odd Hours of a Physician," &c. Philadelphia: J. B. Lippincott & Co. 1873.

This is certainly a remarkable book. The author is himself evidently a "thinker." A *critique*, such as the volume deserves, would require far more space than could be possibly accorded to it in the Journal. We, therefore, shall not attempt a review, and can barely offer a notice. The author's style is terse, condensed, powerful; his logic

clear, his arguments persuasive. There is a somewhat affected—apparently—transposition of words, in his sentences, which makes the book, in many portions, rather hard reading. Indeed, no one need take it up for holiday amusement—it will require close attention in perusal—being by no means "light" reading; nor do we think it heavy, either—it is peculiar. All the ancient "thinkers" are marshalled forth, and duly inspected and discussed; and not a few of the moderns, also. It is a good and thorough examination—from Thales, Copernicus, Socrates, Plato, and all those men of mark, down to Compte, Darwin, Huxley, and other smaller "scientists" and "evolutionists."

Handsome and worthy tribute, also, does the writer pay to some we, perhaps, especially delight to honor—Emerson, Holmes, Whittier and—although not so near to us—"Ik Marvel." The only word, or expression, we can really take exception to, when "The Autocrat of the Breakfast Table" is spoken of, is the doubt hazarded as to whether he is in any wise a "cynic!" Not, surely, in any disagreeable sense. The cynics were, we believe, very wise and excellent people, originally; but now-a-days, by a cynic, we fear, is nearly always understood a harsh, mean, crabbed, vinegary sort of person. Is it not so? Of "Ik Marvel," he speaks in terms of real affection. "With ever responsive natures listen to that philosopher of open hearts, Ik Marvel. Never absent from our gatherings is this delightful thinker. Over and again, we ask him to repeat to us that sweet dedication to 'Mary;' over and again, we compel him to speak that freshness which went with him through Illyria, and which was all ablaze with careless happiness when the logs blazed on the hearth of the country house."

If there is one special thing and word that, as it were, haunts us, throughout the book, it is "correlation." We once read a book on the "Correlation of Ideas," and our small modicum of the latter has been in confusion ever since! Reader, you should "think" a good deal before and after perusing this book. We like its ending; see if you do not:—"But our discussions concerning location never amount to anything; for, as each makes search to example his own preference, we are, of necessity, led to perceive that hearts, rather than heads, it is, which make homes."

The book is well printed on excellent paper. W. W. M.

A Handbook of the Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D., Assistant Physician and Assistant Teacher of Clinical Medicine at University College Hospital, &c. &c. Philadelphia: Lindsay & Blakiston. 1874. Small 8vo. Pp. 1052.

THIS work is intended mainly for the use of students, and hence differs in its plan from that of most treatises on medicine. It is intended to assist the learner in acquiring the principles and the practice of his art by teaching him the best methods of clinical investigation, as well as by describing the diseases which he will meet with.

It is divided into three sections. The first, which is introductory, after a few good instructions on the method of "case-taking," treats generally of the etiology and semeiology of disease, and of diagnosis, prognosis and treatment. These chapters are short, but very clear, and we do not see that anything important has been omitted.

The second section treats of *General Pathology*, including hyperæmia or congestion, dropsy, hæmorrhage, inflammation, hypertrophy, atrophy, degeneration, and fever or pyrexia. These chapters are brief; but by leaving aside all theories, and confining himself to facts, or to the opinions of the highest authorities, Dr. Roberts is able to give a very clear and interesting account of the various morbid processes, and to state the most recent views which are now generally accepted, at least in England. The phenomena of the process of inflammation, for instance, are well described, and, without going into minute details, the opinions of the most eminent pathologists of the day are related, as to its nature and origin. The general treatment of some of these morbid conditions or processes is also given.

Section third is devoted to individual diseases and their clinical investigation. Here we meet with an innovation on the method usually adopted in treatises on medicine. The descriptions of the several organs or systems are preceded by an outline of clinical phenomena peculiar to each, and of the different modes of physical examination required for their investigation. Thus, the account of continued fevers is preceded by a chapter "on the clinical investigation of acute febrile cases," which includes a good account of the use of the thermometer as a means of diagnosis and prognosis. Forty pages are devoted to the subject of the physical examination of the chest, before the diseases of that region are treated of; they comprise an excellent summary of auscultation and percussion, and really include almost everything a student ought to know on the subject of the application of those methods of diagnosis to the diseases of the lungs and heart. The general clinical characters of the diseases of the respiratory organs, especially dyspnœa, apnœa, cough and hæmoptysis, are also fully treated of. After these preliminary chapters, come the different diseases of the thoracic organs, each of which receives due attention.

In the same way, the descriptions of the organs of circulation, of the liver, of the kidneys, of the nervous system, &c., are preceded by an account of the clinical phenomena by which each is characterized, of the means whereby they are investigated, of their general diagnosis, prognosis and treatment. By this means, a great deal of repetition is avoided, and the relationship or interdependence of the diseases of these organs or systems is made clear.

We observe with satisfaction, throughout the book, that the latest views which have obtained acceptance to any degree are at least alluded to, if not discussed, though in some cases their adoption or rejection is left to the reader's own convictions. Thus, for instance, on the subject of phthisis, the so-called "German ideas" are presented to the reader, especially those of Niemeyer; while the difficult questions relating to the nature and pathology of tubercle are clearly stated, and the views of the most eminent authorities of the present day are given.

The portion of the work devoted to diseases of the nervous system contains a very complete summary of what is known on that subject. The clinical characters of these diseases are very fully detailed, and will repay attentive study. All the most recent methods of clinical investigation are treated of, including the examination of the retina with the ophthalmoscope. In the department of diagnosis, the student is made acquainted with all the known tests on this difficult sub-

ject. Then follows the description of general nervous diseases, hysteria, hypochondriasis, epilepsy, chorea, hydrophobia, tetanus, alcoholism (including delirium tremens), &c. After these, come the organic diseases of the brain and of the cord, and their membranes. A chapter on the general diagnosis, prognosis and treatment of organic nervous diseases follows, which may be read with much profit. In a supplementary chapter are briefly treated some of the rarer diseases of the nervous system :—wasting palsy, writer's cramp, shaking palsy, infantile paralysis, epidemic cerebro-spinal meningitis and glosso-pharyngeal paralysis.

The few specimens we have selected will give the reader a general idea of the scope and the value of Dr. Roberts's work. They are a fair sample of the whole, and our opinion of it is one of almost unqualified praise. The style is clear, and quite free from the dryness which we so often meet with in condensed works. The amount of useful and, indeed, indispensable information which it contains is marvellous, considering it is not a treatise, but a manual of reasonable dimensions. Hence, although intended chiefly for students, it will prove of great value to the practitioner, especially to one who desires to keep abreast of the advancement of medical science, but who is prevented by the pressure of constant professional labor from studying more elaborate works, or from reading and digesting the vast amount of periodical medical literature which is daily issued from the press. Lastly, it should be said that the book is of convenient size, and is beautifully printed, in a clear type and on white paper. We heartily recommend it to students, teachers and practitioners.

The Venereal Disease of Horses.—It is not generally known that there is a contagious venereal affection among horses. This malady, which has received a number of names, such as the *epizootie chancreuse, maladie du coit, typhus venerien, syphilis du cheval*, &c., by the French veterinarians, and the *beschälkrankheit* and other names by the Germans, was unknown, it seems, before 1796, when Ammon observed it in North Persia. It is believed to have been seen in Russia before that period, and Renner witnessed its effects in the Imperial stud. It always prevails with most severity in Southern Russia. It has spread since it was first observed to various parts of Prussia, Hanover, Bohemia, Hungary, Silesia, Switzerland, Wurtemburg, and France. It has shown itself in Algiers since the French occupation of that country. The symptoms are said to be local at first, somewhat resembling those of human syphilis; the secondary effects are cutaneous eruptions, nervous affections, paralysis, and a lingering death. Its contagious character has been fully ascertained, and legislative measures have been successfully adopted in some countries to check its ravages.—*Medical and Surgical Reporter.*

Sinapisms.—In making a mustard plaster, use no water whatever, but mix the mustard with the white of an egg, and the result will be a plaster that will draw perfectly but will not produce a blister even upon the skin of an infant, no matter how long it is allowed to remain upon the part.—*The Medical Brief.*

Boston Medical and Surgical Journal.

Boston: Thursday, January 8, 1874.

The return of the new year naturally reminds the physician that, among other things, he is of the earth, earthy, and that, in common with the rest of mankind, he has some very human needs, to satisfy which, he must make demands on the world's purse. For he now balances his accounts, and is apt to become sordid for, at least, once in the year. He counts up his actual receipts and makes out his bills receivable, if he be a man of systematic habits and thrifty turn of mind. We cannot say what proportion of the practising physicians suffer these new year experiences to their full degree, but it is very likely that the number who keep accounts, as strictly as the merchant does, is in a minority hardly respectable. Assuming, then, that doctors are generally lax in the keeping of their business accounts, and that the great majority can very properly have it said of them in their obituary notices, "He died in only moderate circumstances, because he did not enforce the payment of his bills," we have a word to say by way of homily to the doctors who think it wrong to introduce anything of the spirit of trade into their profession.

This idea of the evil of making money out of practice is something of a bugbear, in the name of which too many of us let debts go by default. It will do well enough for the man who starts in business without any of the pinching of fate in prospect, to argue that medicine is a liberal profession and not a trade. The fruit of this argument will not, however, serve as well as legal tender in the payment of bills for provisions and groceries. It has not yet come to light that the doctor is a favored individual in the eyes of ordinary tradesmen and mechanics; and we presume that physicians' families are blessed with ordinary appetites which must be satisfied without discount, and that the wear and tear of physicians' domestic lives expose them to the average expenditure of hard cash. So that, granting all this necessity, the duty of physicians demands that they should regularly collect from their patients the adequate pecuniary reward for their professional services.

Let it not be understood, however, that a physician's success in life is to be measured solely or mainly by the number of dollars he has hoarded. That is not the question. If that were the spirit of our argument, we should surely be on the wrong side. But we mean that it is not sinking the profession into a trade to look out for the proper, honorably earned fee. To do less, to keep accounts on the easy-go-

lucky system, to be grateful for any fish that come to the net, but too unthrifty to use the net actively, is demoralizing both to the physician himself and to his patrons, contrary to a wise economy and prejudicial to independence of action. After all is done that can be fairly expected in the direction of satisfying the *auri sacra fames*, there will be still left a great field wherein any doctor can exercise the charitable instincts which so creditably characterize his profession.

We know the difficulties of the case, and that it is much easier to let "that little bill" drop if the payment is procrastinated by the debtor; we know that the words of Dr. Luke Lundin—"*Præmia cum poscit medicus, Sathan est*"—are too often literal verity in practice; but we also believe that something more of mercantile thrift infused into medical practice will work small ill in the long run. The laborer is worthy of his hire.

It is rather a curious fact, that the Trustees of the City Hospital advertise for applicants to fill its offices. It is another curious fact, that the Trustees of this institution do not appoint to those offices the candidates whose professional records stand the best.

Political friendship; sectarian alliance; qualification; which is the touchstone of success for applicants?

Is it not almost time for the hospital to be in the hands of the Board of Health, or of a board of trustees independent of aldermen and councilmen?

The *Lancet*, in a late article, makes the statement that Shakspeare in none of his plays has held up the medical profession to ridicule. In the "Merry Wives of Windsor" he makes fun of poor Dr. Caius, but the joke is at the expense of the Doctor's queer English, not his profession. On the other hand, Molière has never pictured a doctor except to laugh at him, and, from what we know of the state of the profession in his time, his ridicule was richly deserved. We have no reason to complain of our treatment at the hands of modern dramatists. Of late years, the doctor is usually represented as the man of shrewd discrimination and strong sense of justice, who turns up in every act to confound the machinations of the wicked characters; and, if his medical treatment be somewhat startling, and his operations such as would be impracticable off the stage, his intentions at least are admirable, and his results enviably successful. When he is laughed at now-a-days, the fun is almost always good tempered. In a play called "Alone," which is being acted in London, there is a Doctor Mucklethwaite, who plays an important part. The character is well sustained, and the young medical man whom the actor represents, with a hat of irreproachable glossiness and an occasional cigar, presents an amus-

ing contrast to the formal physician of the old school, with his wig and snuff-box and gold-headed cane, and there is much truth in the portraiture. The doctor is represented quite as much at home in unveiling the treachery of a supposed friend as in restoring sight to a blind old colonel. Of the operation by which this last result is achieved, it is unfortunate that no details are given, as it could not but be an exceedingly useful addition to the resources of surgery.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, December 27, 1873.)

OPERATIONS were performed in the following cases:—Disease of Elbow-joint, Tumor of Breast, Tumor of Upper Jaw, Tumor of Leg, Painful Cicatrix, Hydrocele of Neck. During the week, Hydrocele of Neck and a Railroad Injury of the Foot.

Disease of Elbow-joint; Amputation.—A male patient had suffered from more or less inflammation in the joint for seven months. In September, abscesses formed, which were opened. Since then, his general health has failed. Dr. Cabot made a straight incision over the olecranon, intending to give him the benefit of excision, but the disease was found to be so extensive that amputation of the arm was performed.

Recurrent Cancer of the Breast—in a woman 50 years old, and of the size of an English walnut. The disease had re-appeared within six months in the cicatrix of a previous operation. The tumor was ulcerated, painful, and involved the skin, but was not adherent. Excision was performed by Dr. Bigelow.

Cancer of Upper Jaw—in a woman 50 years of age. Painful, and of six months' duration. It occupied the antrum of the left side, occluded the nostril and projected from the hard palate into the mouth. Dr. Cabot made a curved incision from the commissure of the lips to a point above the zygomatic arch, and divided the upper lip vertically to a point near the inner canthus of the eye. The flap was raised, the nasal and malar processes of the superior maxilla and the hard palate were successively divided with bone forceps. The growth, which largely involved the bone, was broken and cut away from its remaining attachments. The bleeding vessels were tied and the wound closed with sutures.

Tumor of Leg; Excision.—The patient, a man of 60 years, had, some months since, received a blow upon his leg. After the use of irritating applications, a pimple appeared, which rapidly increased, with pain and disability. Ulceration had recently converted this growth into an epithelioid ulcer, with thickened edges, and occupying an area three by four inches. Dr. Bigelow encircled the mass by a deep incision and dissected it from the sound tissues, remarking that it would probably return, but that the patient was not prepared to lose his leg at present.

Painful Cicatrix—following amputation of thumb. Dr. Cabot opened the stump, and found that a sharp corner of bone caused the pain. This was removed.

Hydrocele of Neck—in a man, of the size of an orange, and situated in the superior carotid triangle, underneath the edge of the sterno-cleido-mastoid muscle. Dr. Bigelow dissected down to the cyst and punctured it with a trocar. About three ounces of a creamy fluid were evacuated and a seton inserted. The presence of cholesterine identified the lesion as hydrocele of the neck.

Hydrocele of Tunica Vaginalis, double.—Punctured, and seton passed through the sac by Dr. Bigelow, who remarked that this old method required

careful watching lest the inflammation be overdone; that no single method was best for all hydroceles, but that, where the sac was thin or the affection recent, caution was desirable in effecting a radical cure, lest the scrotum slough, as it sometimes does in such a case after incision. On the other hand, in an old and thick hydrocele, it may be desirable to dissect out the front of the sac. It is not easy, by injection or any other method, to ensure always a radical cure, the difficulty being to produce inflammation enough and not too much. Injection, properly performed, is perhaps most widely applicable.

Hydrocele of Neck—of one one year's duration, in an adult, unaccompanied with pain, situated in the superior carotid triangle, fluctuating and not tender. Dr. Bigelow punctured it, and removed about four ounces of a coffee and milk colored fluid containing cholesterine. The puncture was enlarged to admit the finger to a cavity extending beneath the inferior maxilla and downward to the thyroid cartilage. It was separated from the bifurcation of the carotid by a thin membrane only. A counter-opening was made and a seton passed through the cavity, to remain until obliteration was effected. In both cases of this affection, its short duration had raised the question of abscess, but the presence of cholesterine was conclusive in determining its cystic origin.

Railroad Injury of Foot; Amputation.—The tarsal and metatarsal bones were comminuted, and there was extensive laceration of the soft tissues of the foot. Dr. Cabot amputated at the junction of the middle and lower thirds of the leg by the circular method. H. H. A. Beach.

BOSTON CITY HOSPITAL.

Last Friday, Jan. 2d, surgical operations were performed as follows:—

A boy of ten years was presented with the history and symptoms of Congenital Phimosis—a long and apparently contracted prepuce, any attempt to retract which was attended with much distress. There was said to be difficulty of micturition, also. The parents of the child desired that he be circumcised, and brought him to the hospital for that purpose. When, however, the patient had been fully etherized, it was found that there was no phimosis; the glans could be nearly uncovered, and a full stream of urine was discharged from a normally located urethra. Upon the upper surface of the glans, the prepuce was adherent a little distance in front of the corona and over about half the circumference. This adhesion was probably a remnant of the condition which exists in fœtal life, wherein the prepuce and the glans are not yet separated. In the present case, the prepuce was set entirely free by a touch with the scalpel, aided by a little forcible retraction.

Dr. Cheever spoke, in connection with this case, of two cases within his knowledge, in which, by the use of caustics in the hands of charlatans, for the treatment of supposed venereal disease, the prepuce and glans had become wholly adherent, the result of the induced balanitis.

Dr. Cheever performed Tenotomy in a case of Talipes Varus, in a young woman. The same patient had had tenotomy of the hamstring tendons of the same side performed three weeks before, to relieve a contracted knee.* The operation had been successful in relieving the contraction, and the limb was now nearly straight. To relieve the varus, Dr. Cheever divided, subcutaneously, the tendons of the tibialis posticus and flexor longus digitorum, the tendo Achillis and the plantar fascia. This procedure allowed the foot to be straightened to a very considerable degree; but Dr. Cheever pointed out the fact that, in the twenty years during which the patient had trodden on the outer and upper side of the foot, the astragalus and other bones of the tarsus had become conformed to the abnormal condition, so that tenotomy did not offer complete success. He proposed, after four days, to apply a shoe to the foot, supports from which should reach above the knee, so as to keep that joint extended while the sole was maintained in its proper position.

A case of Fissure of the Anus, with Internal Hæmorrhoids and growths

* Journal, Dec. 9th, 1873, p. 622.

about the margin of the anus, resembling old condylomata, was next operated upon by Dr. Cheever, the patient being an adult female. The hæmorrhoids were touched through a speculum with nitric acid and at once washed with a saturated solution of carbonate of soda. The condylomatous growths were removed with scissors. The sphincter ani was divided at its latero-posterior part, at one side of the fissure which was directly in the centre, posteriorly.

On Tuesday, December 30, Dr. Cheever operated before the class on a foot which had been caught between a swinging derrick and a wall. The outer third of the foot was crushed. There was a deep, lacerated wound on the dorsum, with compound fracture of the fifth metatarsal bone, and partial denudation of the fourth metatarsal bone, without fracture. A deep, lacerated wound appeared in the sole, which communicated with the one on the dorsum.

Dr. Cheever called attention to the fact that the chance of recovery, after injuries or disease, was better on the outer, than on the inner side of the foot. This was due to the larger size of the bones, and to the smaller extent of synovial surfaces involved. The fourth and fifth metatarsals articulate solely with the cuboid, in a single synovial sac; but the second and third metatarsals articulating with the small cuneiform bones, this joint forms part of an extensive synovial sac, which includes the cuneiforms and the front of the scaphoid bone. He was therefore encouraged to hope that, by the removal of the shattered fifth metatarsal at the junction with the cuboid, subsequent suppuration could extend no farther than the articulation of the contiguous fourth metatarsal, and could not penetrate the tarsus. He accordingly removed the smallest toe and the fifth metatarsal bone back to the cuboid, and covered in the wound partly with the torn flap of skin. Should this flap slough off, as was not unlikely, he should trust to repair by granulation.

F. W. DRAPER.

Correspondence.

MESSRS. EDITORS,—Professor Verneuil has recently claimed, as new, an expedient for saving blood and facilitating dissection in the removal of the upper and lower jaw bones. The alleged novelty consists in dissecting the tumor and dividing the bone, before opening the buccal mucous membrane, so as to keep the blood from the cavity of the mouth until the last moment. A somewhat extended correspondence upon this subject, between Prof. Verneuil and Daniel Mollière, will be found in the *Gazette Hebdomadaire de Médecine et de Chirurgie* for September 12th and 19th, 1873. (See, also, proceedings of the Société de Chirurgie for July 2d, 1873, published in the same journal, and Report on Surgery, Boston Medical and Surgical Journal for December 18th, 1873.)*

That Prof. Verneuil can lay no claim to novelty in this method of removing the lower jaw, is shown by the following extracts from the Records of the Massachusetts General Hospital. The first is of the date of June 15th, 1850 (vol. 44, p. 132, an operation of Professor H. J. Bigelow); the patient was a girl of 14 years, with a tumor of the lower jaw, requiring the removal of this bone from near the angle, on one side, to the articulation on the other.

"This large flap was dissected upwards in front as far as the mucous membrane of mouth, as also the masseter muscle. Posterior surface of jaw also exposed as far as floor of buccal cavity. This dissection being completed, it remained only to open the cavity of the mouth, which was done by a vertical incision through the lower lip on median line, and rapid dissection of

* See, also, the report of an operation performed by Nélaton, in 1852.

" In performing the operation, in order to lay bare the bone, M. Nélaton said he would not make an incision from the commissure of the mouth; this produces a great loss of blood, and in this case he desired to give chloroform. The whole exterior face of the tumor would be exposed without entering the cavity of the mouth."—*Clinical Lectures on Surgery*, by M. Nélaton, Philadelphia, 1855.

mucous membrane at the base of alveolar processes on each side, a ligature having been passed beneath tongue to prevent it from slipping down throat. Until this time, the buccal cavity had remained intact, and blood had been excluded from it" . . . . . "The principal features of the operation were the preservation intact of the buccal cavity, during the external dissection, and the non-division of the facial nerve."

A second record is of date June, 1857, vol. 175, p. 176, likewise an operation of Bigelow. The patient was a man of 30 years, with a tumor of the lower jaw.

"Ether having been administered, the angle of the jaw was denuded for examination, and was found to lose itself in ascending into the substance of a semi-ossified mass with which it was continuous. It only remained to extirpate this part of the lower jaw bone. The incision was continued forwards toward the angle of the mouth and backward toward the lobe of the ear. The tumor was partially denuded without, the bone divided in front of the angle, the mucous membrane of the mouth being left uncut till the last moment to prevent the blood from entering the throat."

This expedient is no doubt of value in the removal of the lower jaw, where the principal part of a long operation generally consists in dissecting the soft parts including the muscles, from the bone. For the division of the latter, a few moments suffice; so that the buccal mucous membrane can be easily left intact, until the end of the operation. Not so, however, in the excision of the upper jaw, for which Prof. Verneuil also claims the advantage of this method. Here, it takes but a few moments to dissect up the outside flap from the tumor. The time required for this operation is chiefly consumed in the separation of the tumor and its bony attachments. This is often bloody, and can be best, we had almost said only, done when the cavity of the mouth is laid freely open at the commencement of the operation.

Boston, Dec. 22, 1873. H. H. A. BEACH.

SICKNESS RATES.

MESSRS. EDITORS,—Will you allow me to use your columns for the purpose of asking our professional brethren to try to discover what proportion of our whole population is constantly sick? This must be a difficult question to answer in cities and large towns, where there are many physicians, but in towns of from one to three or four thousand people, it seems to me that, attention being given to the subject by the resident practitioners, a very close approximation to the absolute truth may be reached. There are not a few towns of a thousand inhabitants or thereabouts, with one resident physician who is acquainted with the condition of health in every family. We already know, through registration by the town and city clerks, the comparative death-rates in country and city, in the different counties, by the sea-shore and in the interior of the State, in factory towns and in crowded cities. With these facts well established, and a careful note of the sickness-rates in a large number of small towns, we could estimate with a near approach to certainty the proportion of persons constantly sick throughout Massachusetts and New England.

The value of such information in statistical inquiries, in all efforts to improve the health (and wealth) of the people, is apparent. It may be a long time yet before any plan can be devised which will give us the comparative prevalence of such special diseases as cannot be measured by their mortality; but we may readily discover, through the careful observation of physicians, how many are at all times disabled by every form of bodily ailment. We are quite aware that very positive statements concerning the ratio of the sick to the well may be found in the writings of physicians and sanitarians, both in the United States and in various European countries, but they seem to be only guesses, and they differ widely from each other. If we can find out the sickness-rates of the people of New England, it will be a real addition to sanitary knowledge. Any information on this subject will be received with many thanks by the undersigned. GEORGE DERBY, M.D.

102 *Charles Street, Boston*, Dec. 29, 1873.

Obituary.

Dr. Anson P. Hooker.

Death has removed from our midst Dr. Anson Parker Hooker—a colleague respected and beloved by all those of his professional brethren who had the privilege of calling him friend. We are glad to be able to present the following tribute to his memory paid by Surgeon-General Dale in his annual report, just delivered to His Excellency, the Governor:—

On the last day of the year just closed, it was my painful duty to inform your Excellency of the death of Colonel Anson Parker Hooker, of your staff, and Assistant Surgeon-General of the Commonwealth.

Sprung from a line of physicians distinguished in the profession and honored in the community, he was a graduate of Harvard University, class of 1851, and a member of the Massachusetts Medical Society, 1855.

On the breaking out of the late rebellion, he was one of the first among our young surgeons to offer his services to his lamented chief, the late Governor Andrew.

Early appointed to the supervision of the camps for recruits, he was commissioned surgeon of the 26th Mass. Vols., Sept. 10th, 1861, serving with honor and distinction in the Department of the Gulf, until he was compelled, through exhausting disease, to resign his commission and return home, June 18th, 1862. This disability continued upon him through the remaining years of his life and hastened his death.

Recovering partially from this sickness, he was again placed in the medical charge of the camps of the State, and commissioned, by Gov. Andrew, Assistant Surgeon-General, May 26th, 1863, serving also upon the Staff of Governors Bullock, Claflin and your Excellency.

He discharged all the trusts imposed upon him with rare ability and great fidelity. Ingenuous and truthful in his nature, he won the love of all with whom he was associated, by the amiability of his character and the rare excellence of his disposition. With a generous heart and an opened hand, he succored his comrades in distress, and won the love and respect of the poor by his disinterested and kind ministrations in their service. He was a wise and safe counsellor and a faithful and true friend.

In this Department, he was warmly loved and respected. In common with my professional brethren and associates at these headquarters, I mourn his loss, and offer this imperfect tribute to his memory.

Medical Miscellany.

The New British Pharmacopœia will be issued from the press in revised form in the present month.

"Sermons for the Insane" is the title of a new work just announced in England.

Recueil d'Ophthalmologie is the title of a quarterly journal recently brought out in Paris, by one of the leading oculists of that city, Dr. Galezowski.

Appointments.—W. E. Boardman, M.D., and E. W. Aiken, M.D., have been appointed physicians to the newly instituted out-patient department of the City Hospital for the treatment of the diseases of women.

Quack Medicines.—"Harrison's Peristaltic Lozenges" are advertised by circular, with a recommendation attached, purporting to be quoted from the Journal. We wish the profession and the public to understand that we do *not* recommend this, or any other quack medicine.

REMOVAL OF THE BITTER TASTE OF QUININE.—It is not generally known that the bitter taste of quinine may be effectually concealed, while the efficacy of the drug is retained, by combining it with tannic acid. Ten grains may thus be deprived of its taste by one and one-half grains of the acid.

FORMULA FOR BURNS.—Yellow wax, melted and strained, ℥j.; linseed oil, raw, ℥iij.; tannin, ℥j.; subnitrate of bismuth, ℈j. Heat the wax in a clean, tin vessel, add the oil and stir till they are thoroughly incorporated, then remove from the fire and stir till cold, adding first the tannin, and lastly the bismuth. To be applied on pledgets of lint to the surface of the burn, which should be previously carefully cleansed.—*Canada Medical Record.*

ENGLAND AS BAD AS AMERICA.—According to the *Lancet*—"A correspondent is offended by having received two copies of a pamphlet on the virtues of a certain article of medicinal diet. Let him be thankful that he has not received three. If books will not sell, what can the authors do with them but give them away?"

NOTES AND QUERIES.

THE AMERICAN MEDICAL ASSOCIATION, says the *New York Medical Record*, "does not seem to have any wires to pull; it is simply led by the nose."

IN answer to the inquiries made by X. Y. in the "Notes and Queries" of the JOURNAL for December 18th ult., a correspondent informs us that when a physician is summoned by a police officer to attend any case, medical or surgical, the city is the debtor. If the physician so summoned will send to the police captain of the station, to which the officer summoning belongs, a bill for the service rendered, made out against the city and detailing the time and circumstances of the summons, he will be waited upon in due season by a messenger with the cash. The City Physician gets no perquisites of this kind, and is paid nothing beyond his regular salary. Moreover, he is not obliged by the ordinance to attend any cases of sickness except of persons held as prisoners or of those at the temporary home.

With regard to the witness-fees of physicians, there is no provision in law or otherwise which favors doctors in this respect. When summoned as ordinary witnesses to testify to facts, they must expect the treatment and recompense of ordinary witnesses. If they are summoned as experts to testify in matters of opinion, they get experts' fees. It is in the power of the counsel who summons to make the stay of the witness long or short in the court-room; generally, the counsel are quite ready to favor physicians and to dismiss them with the least delay, if requested to do so.

Now that somebody has answered Mr. Gum Lancet, will Mr. Gum Lancet, or somebody else, give us the other side, and oblige ME.

DIED,—In East Cambridge, Dec. 31st ult., Dr. Anson P. Hooker, aged 41 years.—In this city, 2d inst., Alexander Thomas, M.D., class of 1822.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending December* 27, 1873.

Boston, 126—Charlestown, 5—Worcester, 15—Lowell, 24—Milford, 3—Chelsea, 6—Cambridge, 11—Salem, 6—Lawrence, 9—Springfield, 6—Lynn, 6—Fitchburg, 4—Newburyport, 4—Somerville, 4—Fall River, 21—Haverhill, 3—Pittsfield, 3. Total, 256.

Prevalent Diseases.—Consumption, 48—scarlet fever, 29—pneumonia, 23.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 3d, 153. Males, 73; females, 80. Accident, 1—apoplexy, 5—inflammation of the bowels, 1—disease of the bowels, 1—bronchitis, 8—disease of the brain, 4—congestion of the brain, 1—cancer, 6—cerebro-spinal meningitis, 2—cyanosis, 3—consumption, 33—convulsions, 4—croup, 1—debility, 7—dropsy of the brain, 1—diphtheria, 2—epilepsy, 2—erysipelas, 3—scarlet fever, 7—typhoid fever, 4—bilious remittent fever, 1—disease of the heart, 10—hæmorrhage, 1—disease of the hip, 1—disease of the kidneys, 3—congestion of the lungs, 3—inflammation of the lungs, 10—marasmus, 5—old age, 4—paralysis, 2—pleurisy, 1—premature birth, 2—purpura hæmorrhagica, 1—rheumatism, 2—tumor, 1—whooping cough, 3—unknown, 7.

Under 5 years of age, 53—between 5 and 20 years, 11—between 20 and 40 years, 33—between 40 and 60 years, 23—over 60 years, 33. Born in the United States, 111—Ireland, 26—other places, 16.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XC.] THURSDAY, JANUARY 15, 1874. [No. 3.

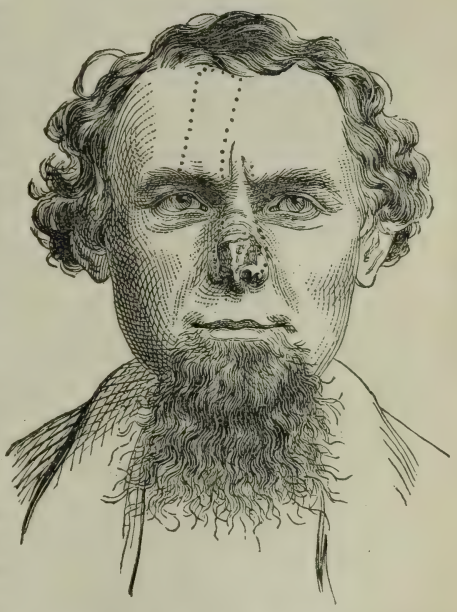
Original Communications.

A CASE OF RHINOPLASTIC OPERATION, PERFORMED FOR THE RESTORATION OF THE APEX OF THE NOSE AFTER IT HAD BEEN BITTEN OFF.

By GURDON BUCK, M.D., New York.

W. W. G., aged 35, a resident of New York city, was brutally attacked on the evening of May 12, 1872, and, during the affray, had the apex of his nose bitten off by his assailant. At the first examination, twelve days after the occurrence, the condition of the parts was found to be as follows:—All inflammatory swelling of the nose had subsided. There remained a healthy suppurating surface, and the loss of substance included the integument covering the apex and adjacent ridge of the nose as high up as its middle, and also both sides of the nose as far toward the cheeks as a line passing within half an inch of the junction of the nose with the cheeks. The entire bare surface was equivalent to at least one third of the superficies of the organ. The alæ nasi were disconnected anteriorly, and both had sustained an equal amount of loss of their anterior portion. The columna remained entire, *in situ*, and the denuded ridge of the cartilaginous septum had escaped injury. Fig. 1 shows the condition just described.

FIG. 1.

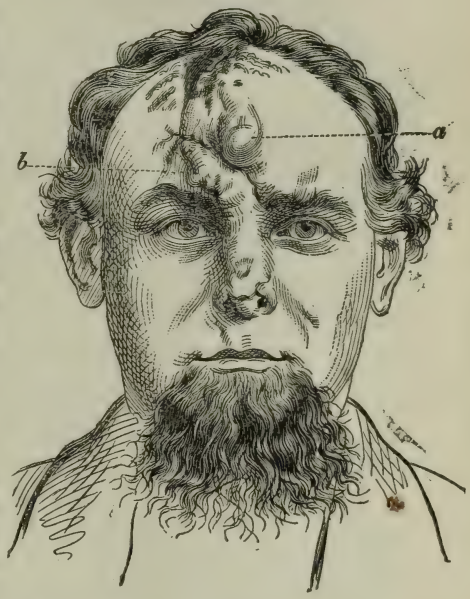


Operation.—On Saturday, May 25th, an operation was performed at patient's residence, with the aid of Prof. A. C. Post, Drs. T. E. Satterthwaite, J. N. Beekman and N. S. Westcott, as follows: The

patient was under the anæsthetic influence of ether. After paring the anterior edges of what remained of both alæ, and making them straight, an incision was carried upward in continuation of these edges on both sides of the nose to the inner extremities of the eyebrows. The patch of skin included between these incisions was dissected up from the dorsum nasi and from between the eyebrows. A pattern of the shape of the entire denuded surface was cut from oiled silk and laid vertically upon the right half of the forehead, in an inverted position, immediately above the inner half of the eyebrow, with one edge at the terminus of the incision on the right side of the nose. Short pins were then inserted temporarily in the skin, in an erect position, at intervals, around the margin of the pattern, and at a distance of one line from it, to allow for shrinkage. A much larger allowance, however, was made for shrinkage in the length of the patch of skin. The pattern itself was now dispensed with, and an incision, commencing at the inner extremity of the right eyebrow, where it would be continuous with the incision bordering the patch of skin that had been raised from the nose, was carried upward, along the line of the pins, and onward around the entire circumference of the defined patch. The patch of skin thus outlined was itself dissected up from the pericranium and left connected below at the margin of the orbit, where a branch of the ophthalmic artery emerges to supply the integument of the forehead. The patch of skin already detached from the nose and from between the eyebrows was still farther raised from the pericranium toward the left eyebrow, where it was left connected for support. By this procedure, a continuous bare surface was afforded with which the under surface of the forehead patch of skin would be in contact after being transferred to the nose. The forehead patch was now brought around edgewise from right to left and from above downward, describing in its circuit a semi-circle, and was applied to its appropriate place, which extended downward to the apex of the nose. Special care was taken that there should be no strain at its pedicle where the patch was folded upon itself and where any obstruction of the circulation would endanger its vitality. The adjustment of the edges of the patch to the edges of the space was much facilitated by dissecting up the latter sufficiently to permit them to be everted, and thereby more exactly confronted to each other. Pin sutures, wound with cotton yarn, were inserted at selected points, and fine thread sutures between them to secure the adjustment. The free extremity of the patch was left elongated, and extending beyond the apex of the nose, the intention being to allow the process of shrinking to cease before making an attempt at adaptation. The patch of skin displaced from the nose and from between the eyebrows, and still retaining its connection over the left eyebrow, was carried upward and applied to the surface left bare by the forehead patch, and sufficed nearly to fill up the lower half of that space. The remain-

ing upper portion of the space encroached upon the hairy scalp, and was left to heal by granulation. The two patches of skin, in being doubled upon themselves to reach their new destinations, formed at their pedicles prominent folds in the skin of a flattened, conical shape, one situated over each eyebrow. The uncovered, raw surface upon the upper part of the forehead, which measured nearly three inches vertically and one inch and a half transversely, was covered, first, with a layer of dry scraped lint and then with a second layer of lint saturated with collodion, which soon stiffened and formed an artificial scab, adhering closely to the surrounding surface. Wet applications were avoided, and a layer of woven lint, of double thickness, spread with cerate, was secured over the parts. A few ligatures only were required to secure bleeding vessels, and these were brought out to the surface at the nearest point of exit. The operation occupied about two hours, and was well borne by the patient. The anæsthetic acted kindly.

FIG. 2.



May 26th. — Patient has had some sleep. A moderate febrile reaction has taken place. The inflammatory tumefaction is moderate. Changed the cotton yarn on the pins. Milk and butter were allowed for nourishment.

27th.—Changed the yarn and commenced removing the alternate thread sutures.

28th.—Removed the pins and additional thread sutures.

29th.—Removed the remaining sutures.

31st. — Suppuration having looosened the collodion scab, it was removed and a healthy granulating surface was exposed, which, thereafter, was dressed with unguentum basilicum and adhesive plaster.

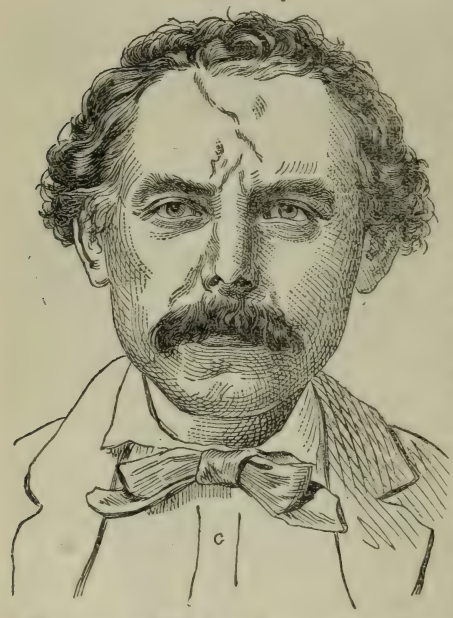
June 1st.—Primary union has taken place at almost all points. Pus escapes freely from underneath both the elevated folds of skin upon the forehead. Appetite is good. The patient sleeps well and goes out of doors.

28th.—The granulating surface upon the forehead has steadily diminished in size, and now measures half an inch in width and two inches in length. The result of the operation is shown by Fig. 2. A

second operation was this day performed for the purpose of leveling the prominences—*a* and *b*, Fig. 2—on the forehead, which were situated over the inner half of the eyebrows, and separated from each other by a smooth space nearly an inch in width. They still retained their flattened, conical shape. The operation was as follows:—A curved incision was carried half around the base of each prominence on its broadest side, and the prominence itself raised from its underlying surface, split across, and then unfolded and spread out flat. The redundant portion was then pared away, and the opposite edges matched together and secured by sutures. The redundant extremity of the patch of skin brought down from the forehead and left projecting beyond the apex of the nose, was trimmed away at the proper time, and adapted itself very exactly to its new location.

Fig. 3, showing the final result, is from a photograph, taken Oct. 12, 1872. At this time, the following particulars were noticed. The cicatrix on the upper part of the forehead had shrunk to small dimensions, and was easily concealed by the hair. The other cicatrices upon the lower part of the forehead and nose were linear, and but little conspicuous. By daily manipulation of the parts, the skin upon the forehead and nose had become supple and moveable. Sensation, which, for several weeks after the operation, had been referred to the original locality of the part irritated, was at this time referred normally to the actual seat of irritation. The skin covering the lower half of the nose which had been taken from the hairy scalp, continued to yield its hairy growth, and required to be shaved at short intervals. The patient was, however, waiting a convenient opportunity to have it radically destroyed.

FIG. 3.



ON PARACENTESIS ABDOMINIS.

By F. Gordon Morrill, M.D. Harv., Boston.

All writers who describe the operation of paracentesis abdominis seem to agree upon the propriety of immediately closing the puncture, after the withdrawal of the trocar, and such is the universal practice of physicians, so far as I have been able to ascertain.

Boyer alone, of the writers whom I have consulted, describes a different course—that of retaining the canula *in situ*—but denounces it as impracticable, on account of its sequences, acute pain, irritation of the viscera and inflammation of the wound, to say nothing of the danger from the entrance of air into the abdominal cavity, which he omits to mention. The few exceptions who proved able to escape, or to endure, these evils, "gained only the advantage of passing large quantities of water through the canula, and eventually died, all the same, of their dropsy"—a result which one would naturally expect.

The books give no definite directions in regard to those cases, by no means infrequent, in which the fluid continues to flow after the removal of the trocar (in spite of the usual precautions to effect its thorough evacuation before withdrawing the instrument), but the classical practice is, I believe, to close the opening as soon as possible.

In speaking of the hæmorrhage, which sometimes results from the injudicious selection, by French surgeons, of a point midway between the umbilicus and the anterior superior spine of the ilium as the proper situation for entering the trocar, Boyer incidentally mentions an expedient of Bellocq's to check the bleeding:—the insertion of a soft and plastic wax bougie into the puncture. On another occasion, Bellocq employed the same means to stop the flow of serum from a patient whose abdomen *would* leak, in spite of the usual applications of plaster or lint, whereby the serum "*en se refroidissant, incommodait beaucoup le malade.*"

A case recently came under my observation, in which the continued flow of serum contributed enough to the patient's comfort to more than counterbalance any inconvenience resulting from it.

X. Y., aged 47 years, presented, on the 1st of September, well-marked symptoms of cirrhosis of the liver and abdominal dropsy, which followed ten years of good living and hard drinking. He had had pneumonia of the right apex twenty months previous to the above date, which resulted in the formation of a cavity and severe hæmorrhages. He had received great benefit from a residence of three months in Madison, Wis., and for some time had had no trouble except a cough, which occasionally annoyed him at night.

Paracentesis abdominis was done on the 13th, the immediate cause being inability to sleep from cough, intense dyspnœa, and failure of the stomach to retain nourishment—all of which symptoms

appeared suddenly, without any perceptible increase of the dropsy. Relief followed, but the fluid soon returned, and by the 18th, his legs and genitals were intensely œdematous, while the cough, dyspnœa and nausea were almost as bad as before. He now refused to be tapped, saying that he "did not see the use, as the whole thing would soon return as before."

On the 24th, he was suffering intensely, and consented to have the operation repeated, and it was immediately done. On withdrawing the trocar, serum continued to flow in quite a stream. I waited some little time, and, finally, went away, telling the male nurse in attendance to renew, from time to time, the cloths which absorbed the fluid, and to apply the usual bit of plaster when the discharge had sufficiently decreased.

The next day, I found that the puncture still remained open, and the flow had continued as great as when I had left him. The patient reported himself feeling very comfortable, and made no complaint of the state of affairs, the nurse having changed the cloths as often as necessary. For nine days, the discharge continued, and during the whole of this time he was free from all distress, while the genitals and legs resumed their natural condition. He was able to get out of bed without assistance, having been perfectly helpless during the greater part of his sickness. At times the puncture could have been easily closed, so slight was the flow, but upon careful probing it would increase.

On the 3d of October, the aperture closed, and, by the 6th, the distention, with its train of distressing symptoms, had returned, together with an intense jaundice. Tapping was again resorted to, with temporary relief, but on the morning of the 8th he sank rapidly, and died the afternoon of that day.

Another instance has come to my knowledge of an old gentleman in whom the puncture remained open six weeks, during which he was far more comfortable than at any other period of his illness.

It would seem that repeated tappings might in this way be (in certain cases) avoided, and considerable ease be given the patient. Of course, in hospital practice, or among those who cannot command the necessary care required in changing the cloths, such a course would be next to impossible. Should the fluid fall below the level of the puncture, the valvular opening closes of itself, and all danger from air entering the abdominal cavity is avoided.

The recent fog in London will long be remembered for the discomforts, accidents and mortality resulting from it. Persons in good health suffered from severe headache and smarting of the conjunctivæ. In numerous cases, it proved fatal to persons with cardiac and pulmonary diseases. In some of the hospitals, the death rate was unprecedented. In the Cattle Show, the horned cattle suffered severely from difficulty of breathing, but the sheep and pigs were less affected.

Progress in Medicine.

REPORT ON PHYSIOLOGY.

By H. P. Bowditch, M.D.

Electrical Phenomena of Nerves and Muscles.

Untersuchungen über den Erregungsvorgang im Nerven-und Muskelsysteme. Bernstein. Heidelberg. 1871.

The electrical phenomena of nerves and muscles, first clearly described by Du-Bois Reymond in his work on Animal Electricity, published in 1848, have since then attracted the attention of many able observers, of whom none have been more successful than Professor Bernstein. This investigator has made important contributions to our knowledge of the electrical changes which characterize the functional activity both of nerves and muscles. To make an account of his observations more intelligible, a few words in regard to the fundamental phenomena may be permitted.

In living nerves and muscles, the electrical state is such that if a connection is made between any point of the normal surface, or of a longitudinal section, and any point of a transverse section (or, in the case of a muscle, of the tendon, which represents the transverse section of all the fibres), and a galvanometer is brought into the circuit which forms this connection, it is found that an electrical current is present, running from the longitudinal section through the galvanometer to the transverse section. In other words, every point in the *longitudinal* section of a nerve or muscle is electrically positive with reference to every point in the *transverse* section of the same. Now, if the nerve or muscle be brought into a state of functional activity (either by mechanical, chemical or electrical stimulation), it is found that the current passing through the galvanometer is diminished in intensity, i. e., the difference between the electrical conditions of the longitudinal and transverse sections becomes less. This is known as the "negative variation" of the nerve- or muscle-current.

By means of extremely delicate and ingenious instruments, it has been shown that the negative variation is first felt in those parts of the nerve or muscle which are in the immediate neighborhood of the point where the stimulus is applied, and that it afterwards makes its appearance at points successively more and more distant, while disappearing at the points where it had first appeared. In other words, the negative variation is transmitted with a wave-like motion along the nerve or muscle in both directions from the point stimulated.

The nature of this wave-like motion has been carefully investigated by Bernstein, who has determined, both for muscles and nerves, the rate of transmission, the length and duration of the wave. The following are the mean values obtained in experiments on frogs :—

Wave of Negative Variation.	Muscle.	Nerve.
Rapidity.	2·927 met. in 1″	27·7 met. in 1″
Length.	10 mm.	18·7 mm.
Duration.	0·0039″	0·00068″

From this table, it will be understood that, when a muscle is stimu-

lated at any one point, the electrical condition of the muscle at that point is changed, that this changed electrical condition is propagated wave-like in both directions at a rate of 2·927 metres in 1″, that each portion of the muscle requires 0·0039″ to go through this changed condition and return to its normal state, and that the distance measured on the muscle between a point which is just entering upon and one which is just leaving this changed electrical condition is 10 mm. The same may be said of nerves, with a change of the figures.

Now, the rapidity of the wave of *negative variation in nerves* agrees quite closely with the value found by Helmholtz for the rapidity of *nerve force*, viz., 26·4 metres in 1″. (This value was obtained by noting how the time elapsing between the irritation of a nerve and the consequent contraction of the muscle attached to it varied according as the stimulus was applied at a distance from or close to the muscle.*) This close correspondence of the two phenomena in regard to rapidity, together with the fact that the height of the wave of negative variation, i. e., the amount of the electrical change, increases with the intensity of the stimulation, clearly indicates that a very close relation exists between the manifestation of nerve force and the change in the electrical condition of the nerve, and may even be considered as furnishing a sufficient reason for regarding the latter as a measure of the former. This is important, for we are thus furnished with a means of determining whether a nerve is functionally active or not, by an examination of the nerve itself, instead of inferring the activity of the nerve from that of the organs (muscles, glands, &c.) to which it is distributed.

Consider next in what way muscular contraction is related to the electrical phenomena of muscle. When any point of a long muscle is irritated, a contraction takes place at that point, i. e., the muscle becomes, at that part, thicker and shorter, and this change of form is transmitted, wave-like, along the muscle in both directions from the point stimulated. The rapidity with which this contraction wave moves along the muscle, may be investigated by placing delicate levers at different points on the surface of the muscle, and allowing their extremities to record their movements on a revolving cylinder covered with smoked paper. The time elapsing between the rise of the different levers measures the rapidity of the contraction wave passing under them. Measurements, made in this way by Aeby† and Marey,‡ showed that the contraction wave of the frog's muscle moves at the rate of about one metre in 1″. This rapidity is only about one third of that of the wave of negative variation, as given above. It would, therefore, seem that the connection between functional activity and electrical condition is not so close in the muscle as in the nerve. Bernstein, however, in a series of carefully conducted experiments, has obtained the following figures as mean values of many experiments :—

	Wave of muscular contraction.
Rapidity,	3·8 metres in 1″
Length,	289 mm.
Duration,	0·0784″.

* See this JOURNAL, January 5th, 1872, p. 54.

† Fortpflanzungsgeschwindigkeit der Reizung in der quergestreiften Muskelfaser. Braunschweig. 1862.

‡ Du mouvement dans les fonctions de la vie. Paris. 1868.

It will thus be seen that the rapidity of the contraction wave is quite as great as that of the wave of negative variation. One reason why Aeby and Marey obtained a smaller value is, probably, that they failed to take into account the diminution which the contraction wave undergoes as it passes along the muscle. Bernstein regards the two rates as identical, and considers the difference in the figures which he obtained as due to errors of observation, thus recognizing the same relation between the phenomena in muscles as in nerves.

Still more conclusive evidence of the close connection existing between the phenomena is obtained by an examination of the length and duration of the waves in question. According to the above values, a contraction wave has a length of 289 mm., moves at the rate of 3·8 metres in 1″, and occupies 0·0784″ in passing a given point. Now, if any point of a muscle be irritated by induction shocks 13 times in 1″, these contraction waves will follow each other so rapidly that one wave will reach a given point of the muscle just as its predecessor is passing away from that point. In other words, each muscular element will have no sooner returned to a state of repose after the passage of one contraction wave than it will be again brought into activity by the arrival of the following wave. If the irritations succeed each other with somewhat greater rapidity (e. g., 20 times in 1″), the contraction waves will overlap each other, and the muscular elements brought into activity by one wave will not have time to return to a condition of repose before the arrival of another wave, i. e., the whole muscle will be in a state of continual or tetanic contraction. This agrees perfectly with the observation that a frog's muscle may be tetanized by irritating it 18 or 20 times in 1″.

Now, if the irritations follow each other still more rapidly, there is at first no change in the nature of the contraction. The tetanus merely becomes more and more perfect by the more complete overlapping of the contraction waves. But when the frequency of the irritation reaches about 300 in 1″, it is found, according to Bernstein, that a single momentary contraction is produced at the *beginning* of the irritation, while *during* the irritation the muscle remains at rest; i. e., the muscle stimulated 300 times in a second fails to respond by a contraction, though the same stimulus, when applied less frequently, is sufficient to produce tetanus. If, now, the intensity of the irritation is increased, while the frequency is kept constant at 300 in 1″, a feeble tetanus is found to follow the momentary commencement contraction. This tetanus may be still further increased by increasing the intensity of the irritation; but, if the frequency of the irritation be increased, the tetanus disappears and the muscle remains at rest. It will thus be seen that when a muscle is stimulated 300 times and upwards in 1″, it will always respond by a momentary contraction at the *beginning* of the stimulation, but that, *during* the stimulation, a tetanus will be produced only by a more intense stimulus than would be necessary if it were less frequently applied. In other words, the more rapid the stimulation (above 300 in 1″), the more intense must it be in order to produce tetanus. These results are obtained equally well whether the irritation is applied to the nerve or to the curarized muscle, which indicates that they depend upon peculiarities of the muscle and not of the nerve.

Now, if we consider the course of the wave of negative variation of

a muscle, we shall find an explanation of the above phenomena. According to the values above given, this wave has a length of 10 mm., and moves at the rate of 2.9 metres in 1″. Therefore if a muscle is irritated 300 times in 1″, the waves in question will follow each other so rapidly that they will begin to overlap each other, and the more they overlap, the more complete will be the state of negative variation in which the muscular elements are kept. In other words, the more rapid the irritation (above 300 times in 1″), the more permanent will be the electrical condition of the muscle, since the muscular elements have less time to return to their normal condition between the passage of the successive waves. The fact that the rapidity of irritation which causes the overlapping of the waves of negative variation is about the same as that which causes the appearance of the commencement contraction, and the disappearance of the tetanus, leads Bernstein to the conclusion that every muscular element must go through the condition of negative variation as a necessary preliminary to contraction, and that the extent (or, more strictly speaking, the suddenness) of this change of electrical condition determines the extent of the contraction.

Bernstein's theory may then be briefly stated as follows. If any point of a muscle be irritated with a single induction shock, a wave of negative variation, 10 mm. in length, starts immediately from the point irritated, and moves in both directions along the fibre, at the rate of about 3 metres in 1″. This is followed, after an interval of about .01″ (period of "latent irritation" of Helmholtz), by the contraction wave, having a length of 289 mm. and a rapidity the same as that of the wave of negative variation. If irritations follow each other with a rapidity greater than 20 and less than 300 in 1″, the contraction waves overlap each other, while the waves of negative variation (or "irritation waves," as Bernstein calls them) do not, and the muscular elements, in consequence of the incessant change of their electrical condition, are kept in a state of continued activity, and tetanus results. If irritations succeed each other oftener than 300 times in 1″, the irritation waves overlap each other, and the *first* wave is, therefore, the only one which exerts its full effect on the muscular elements, the effect of the other waves being diminished in proportion to the completeness of the overlapping. The result is, therefore, a strong "commencement contraction" and a tetanus enfeebled or entirely absent.

If a similar relation between the rapidity of irritation and functional activity be supposed to exist in nerves, we should expect that if a nerve were irritated about 1600 times in 1″, the irritation waves would overlap each other and the activity of the nerve be diminished. The question is difficult to decide experimentally, for the contraction of a muscle cannot be used as an indication of the activity of the nerve distributed to it, since muscles, as explained above, cease to contract at a rapidity of irritation far less than 1600 in 1″. Von Wittich has shown (*Pflüger's Archiv*, ii. p. 329) that when the skin is irritated mechanically from 1728 to 3840 times in 1″ the separate irritations blend into one continuous impression. Bernstein is inclined to regard this as the effect of the overlapping of irritation waves, and, considering that we do not know the length of the irritation wave in human nerves, the agreement of the figures is, perhaps, as near as could be expected.

In this connection should be mentioned the experiments of Grün-

hagen, on intermittent irritation of nerves *(Pflüger's Archiv*, vi. p. 157). The apparatus employed was a steel spring rubbing against the edge of a revolving toothed wheel, by which means from 1460 to 10980 interruptions in 1″ could be produced. This interruptor was introduced either into the same circuit with the nerve, or into a side circuit from the same battery. The result was to irritate the nerve by a rapid succession of galvanic currents of exceedingly short duration. These experiments cannot, therefore, be compared with those of Bernstein, in most of whose observations the irritation was produced by induction shocks caused by the making and breaking of a mercury contact by means of the vibrations of a steel spring. It is interesting, however, to notice that the results were, in general, the same, though Grünhagen adopts a different explanation from that of Bernstein. Both observers found that the stronger the single irritations were, the more rapidly must they follow each other in order to insure the disappearance of tetanus.

Setchenow also studied the effect of irritations rapidly following each other *(Pflüger's Archiv*, v. p. 11), using for this purpose induction shocks produced by the interruptor of Froment *(Comptes Rendus*, 1847). He observed essentially the same phenomena ("commencement contraction," disappearance of tetanus, &c.) that were noticed by Bernstein, but, inasmuch as they only occurred when the irritation was made by closing the primary circuit, the nerve being included in the secondary circuit, and were not observed when the irritation was caused by the breaking of a side current in the secondary circuit, Setchenow regards the phenomena as physical in their nature, and dependent upon the construction of the apparatus rather than upon peculiarities of the nerve.

In answer to this criticism, Bernstein *(Pflüger's Archiv*, v. p. 318) calls attention to the fact that in his experiments the phenomena in question *were* observed when the irritation was produced by breaking a side current in the secondary circuit, and, consequently, cannot be explained by physical processes in the electrical apparatus. He attributes the discrepancy between his own results and those of Setchenow to difference in the apparatus employed, and regards as objectionable any instrument which (like Froment's) makes and breaks a circuit by the vibration of a spring against a solid support, for the spring, being thus prevented from completing its vibration, will not vibrate with regularity.

Electrotonus.

Bernstein has also recently contributed to our knowledge of electrotonic changes of irritability *(Pflüger's Archiv*, viii. p. 40). For a statement of the fundamental phenomena of electrotonus, suffice it to say that when a constant current of electricity is conducted through a nerve, the irritability is increased in the neighborhood of the kathode, and diminished in that of the anode, i. e., an irritation applied to the nerve near the point where the constant current enters must be stronger than if applied near the point where it leaves the nerve, in order to produce a contraction of the muscle to which the nerve is distributed. Now, as the negative variation of the nerve current is regarded, for the reasons given above, as the measure of the functional activity of the nerve, we should expect it to be diminished in anelectrotonus and increased in katelectrotonus. In other words, we

should expect that an irritation, applied to a nerve near the kathode of the polarizing current (i. e., the current used to produce the electrotonic changes of irritability), would produce a more intense wave of negative variation than an irritation applied near the anode. This is found to be the case provided the polarizing current is applied at a considerable distance from the point where the negative variation is examined and irritations of feeble intensity are used. When, on the contrary, the polarizing current is applied near the point where the negative variation is examined and strong irritations are used, the opposite is found to be true, i. e., the negative variation increases in anelectrotonus and decreases in katelectrotonus.

To explain this apparent contradiction, and to determine whether anything analogous could be observed when a muscular contraction is used as an indication of nervous activity, was the object of Bernstein's recent investigations. The experiments consisted in conducting a polarizing current of constant intensity through a frog's nerve, and then applying successive irritations, viz., induction shocks of gradually increasing intensity, in the neighborhood of one of the poles. The contractions of the muscle, under the influence of these stimuli applied to the nerve, were recorded and compared with those which the same muscle executed when the nerve was simply irritated by induction shocks without the use of any polarizing current. The result showed that as long as the induction shocks were of feeble intensity, the ordinary phenomena of electrotonus manifested themselves, i. e., increased irritability near the kathode, and diminished irritability near the anode. When, on the other hand, the induction shocks were made strong enough to produce the maximum contraction of the muscle, the opposite result was obtained, i. e., a greater contraction was produced by an irritation near the anode, and a feebler contraction by an irritation near the kathode. The law of electrotonus is, therefore, according to Bernstein, to be stated as follows:—

When a constant current flows through a nerve, it is found that at the positive pole the production of a state of functional activity is rendered more difficult, so that feeble irritations have less effect than in the normal condition (anelectrotonus); but the maximum of activity which can be produced by strong irritations is increased. At the negative pole, on the contrary, the production of a state of activity is rendered easier, so that feeble irritations have greater effect (katelectrotonus); but the maximum of activity which can be produced by strong irritations is lessened. In other words, the nervous molecules in anelectrotonus are less easily moved, but, when set in motion by a sufficient force, are capable of producing greater effects than in the normal condition. The opposite is true in katelectrotonus.

This modification of the law of electrotonus will undoubtedly find important applications in electro-therapeutics.

(To be concluded.)

Jacobi's food for children is prepared as follows: Crack a teaspoonful of barley in a common coffee-mill, then boil it fifteen minutes in a gill of water, adding a pinch of salt. Then strain, and for a young child add one-half as much cow's milk as you have barley-water, and, whilst tepid, nurse from a nursing-bottle. Sweeten slightly with sugar. If the bowels are costive, use oatmeal in place of barley. Keep the bottle clean.—*Philadelphia Medical Times.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION. W. L. RICHARDSON, M.D., SECRETARY.

Uterine Polypus.—Dr. MINOT reported the case and showed the specimen, which he removed from a patient of Dr. J. W. Lovering, of Essex.

The patient was the wife of a farmer, and was 30 years of age. She had had three children, the youngest having been born eighteen months ago. Four months after the birth of this child, she began to have hæmorrhage from the womb, which constantly increased, until the woman was reduced to an alarming condition. She was completely blanched, and the pulse was very feeble. Apparently as a last resort, she consulted Dr. Lovering, who at once detected the tumor. An examination showed the tumor lying wholly in the vagina, and connected with the interior of the uterus by a short pedicle, three-fourths of an inch thick.

With the assistance of Dr. Lovering, of Essex, and Dr. Garland, of Gloucester, a loop of annealed wire was slipped over the tumor, and connected with an écraseur. Before the pedicle was cut through, however, the wire broke, and the section was completed with the scissors. The patient was fully etherized during the operation. In shape, the tumor was nearly globular, the diameter measuring about three and a half inches; the weight was one pound. On account of its size, some difficulty was experienced in removing it from the vagina. It was of the ordinary fibroid variety. The patient did well.

Dr. Minot said there was some doubt, at first, as to the diagnosis of the case. It was thought it might be an inversion of the womb. Owing to the great size of the tumor, which completely filled the vagina, it was very difficult to make a thorough examination, but after the patient was etherized the whole hand could be insinuated into the vagina, so that the stalk of the polypus could be felt, and the disproportion between its diameter and that of the tumor was too great for that of an inverted uterus. Moreover, there was no history of the latter accident.

Dr. C. P. PUTNAM alluded to the fact that, not unfrequently, the hæmorrhage is at once arrested by incising the tumor, as though the bleeding had been caused by the stretching of the mucous membrane.

Dr. MINOT also showed a uterine polypus, of the ordinary fibroid variety, weighing three and a half ounces, of about the size and shape of a tomato, which he had removed from a patient of Dr. A. B. Hall, of Boston. The tumor was almost wholly in the vagina, attached to the lower part of the interior of the uterus by so short a stalk that it was impossible to reach it with the curved scissors, and it was accordingly removed by means of the écraseur, a wire loop being placed around it. The patient was a widow, 65 years old, who had had hæmorrhage, at times very profuse, for more than fifteen years. She had been under the care of several physicians, but no examination had been made until she was seen by Dr. Hall. She made an excellent recovery.

Herpes Zoster Frontalis.—Dr. DRAPER reported the following case as

illustrative of the differential diagnosis between erysipelas and herpes zoster frontalis.

The patient was a man, 60 years of age. At the time of the first visit, there was a diffused redness, rather dull in color, extending over one side of the forehead, and embracing the region supplied by the supra-orbital nerve. The eye was injected, and the appearances, at first view, closely resembled those seen in erysipelas; but the disease was readily distinguished by the early, though scanty, development of the typical vesicles, and by the acute neuralgic pain, which the patient especially complained of. The redness lasted ten days, but the pain persisted for some time after the redness had subsided.

Dr. Williams said that in herpes there was often a dilatation of the pupil noticed. The pain, however, was the marked distinguishing symptom.

Local Action of Bichromate of Potash.—Dr. Green gave an account of three cases, lately seen by him, which exhibited the local effect of bichromate of potash on the nose. They occurred in workmen of a large chemical manufactory, who were exposed to the dust of the salt, which, by lodging on the mucous membrane of the nose, caused ulceration. In one of the cases, the entire cartilaginous septum had been destroyed, and the whole nasal mucous membrane was in a state of purulent inflammation; in another, there was a large and deep ulceration on the septum, without perforation; while, in the third, the whole membrane of the septum was dotted with minute ulcerations. In the first case, the disease had been mistaken for syphilis. The removal of the men from their work, strict cleansing of the parts with a syringe, and the application of mild stimulating lotions, checked the ulcerations immediately, and soon restored the membrane to a healthy condition. By the use of cotton-wool respirators, as suggested by Tyndall, the men afterwards resumed their work, and have continued free from trouble.

Almost every one in the factory had been more or less affected by the dust of the salt; some with ulcers on the hands and body, others with nausea, and almost all with more or less purulent nasal catarrh. The severity of the symptoms was generally proportional to the amount of the dust to which the persons had been exposed.

Dr. Green said a few cases were on record where a similar cause had produced ulceration and necrosis of the cartilages of the larynx.

Dr. Draper said that he had seen the same ulcerations of the nasal septum, to which Dr. Green had alluded, in workmen who were employed in paper manufactories where arsenic was used.

Head Symptoms in Rheumatism.—Dr. Williams reported the case.

An Englishman, unaccustomed to our climate, had an attack of rheumatism, which, after shifting to different parts of the body for two weeks, at length gave rise, suddenly, to marked cerebral symptoms. His pupils were strongly contracted, though he had not taken opium. Slight delirium was noticed, and there was pain in the head. The pulse was 120. Ice was applied to the head, and hot applications made to the feet, and he had half an ounce of sulphate of magnesia. The next morning, he was reported as very comfortable.

Dr. Haskins had seen a case in which rapid increase of temperature had been followed by the same head symptoms which Dr. Williams had described.

Dr. SINCLAIR had also seen a similar case at the City Hospital.

Dr. WEBBER had made an autopsy on two patients who had died under similar circumstances. Nothing was found, however, but an increase of serum between the membranes of the brain, and some opacity, but not more than is frequently seen without cerebral symptoms.

Infantile Menstruation.—Dr. INCHES reported the case.

The second day after birth, some blood was noticed on the baby's diaper. On separating the labia, it was distinctly seen flowing from the vagina. The color was dark red. The flow continued for six days, and then ceased. The child is now nearly a year old, but there has been no recurrence of the discharge. The labor had been perfectly normal.

Bibliographical Notices.

The Student's Guide to Medical Diagnosis. By SAMUEL FENWICK, M.D., F.R.C.P., Assistant Physician to the London Hospital. From the Third Revised and Enlarged English Edition. With eighty-four illustrations on wood. Philadelphia: Henry C. Lea. 1873. 12mo. Pp. 328.

THIS little book ought to be in the possession of every medical student, who will find in it valuable assistance, to enable him to study successfully the diagnosis of the principal medical diseases. It contains directions for the proper method of clinical study, and a sketch of the chief symptoms of each disease, particular attention being paid to the methods of physical examination, whenever available in diagnosis. The illustrations are remarkably good, and the printing is really beautiful—far in advance of that of most medical books published in this country. The present edition contains everything which the most recent advances of medical science have contributed to the improvement of diagnosis. Although intended for the use of students, the book will be found very convenient to the practitioner as a condensed manual of diagnosis.

BOOKS AND PAMPHLETS RECEIVED.

The Liberal Education of the Nineteenth Century. By Prof. Wm. P. Atkinson, of the Massachusetts Institute of Technology. New York: D. Appleton & Co. 1873. Pp. 28. (From A. Williams & Co.)

Report of the Health Officer of the City and County of San Francisco for the Fiscal Year ending June 30, 1873. By Henry Gibbons, Jr., M.D. San Francisco: Spaulding & Barto. 1873. Pp. 46. (From A. Williams & Co.)

Casuistiche Mittheilungen über Bronchitis Crouposa. Von Dr. Karl Bettelheim. Wien. 1873. Pp. 11.

Transactions of the Michigan State Medical Society for the year 1873. Pp. 1870.

G. P. PUTNAM'S SONS, New York, have in preparation:—A Translation, by Drs. M. D. Mann, and S. B. St. John, of the recent work by Professor Ludwig Buhl, of Munich, on Inflammation of the Lungs, Tuberculosis and Consumption.

Boston Medical and Surgical Journal.

Boston: Thursday, January 15, 1874.

More than a year ago, the necessity for the establishment of public urinals in our city was discussed in the Journal, and arguments were drawn upon the side of the public sanitary interests and from the salutary usages of other cities at home and abroad to urge their adoption here. Nothing has as yet been done, however, to forward the scheme proposed. Our community is slow in taking up sanitary reforms. It required a terrible epidemic to bring about the long needed revolution in the administration of the municipal health-ordinances. What analogous calamity affecting the bladders of the community, the City Fathers included, will effect the result we allude to, it is impossible to say.

We do not believe it necessary to reïterate the arguments which have been already used, or to refute false notions of public morality which might be adduced adversely to the plan. The physical and sanitary aspects of the subject are beyond dispute, and we do not believe public morality would suffer greatly even if a retreat were established in immediate, even conspicuous, proximity to the thoroughfares of the city—on the Common and elsewhere.

Facts, moreover, carry more weight than arguments, and to one of these facts we wish to call attention before dismissing the matter here. Our city readers know that on the Flagstaff Hill of the Common is the only public urinal which the city possesses. During the year just ended, over 200,000 persons, or to be accurate, 201,663 men and boys visited this place for urination. The keeper states that at least 2,500 females asked, through their male companions, if they could be accommodated there, and, of course, they were refused admission, there being no provision for such applicants.

Let us, in conclusion, put the blame of delinquency where it belongs. We are assured that the Board of Health is entirely harmonious in this matter, and, being composed of reasonable and progressive gentlemen, it would have gladly established the public urinals in Boston long ago. But the Board cannot make bricks without straw—it cannot pay for improvements without money. When the City Council is asked next month for an appropriation for this purpose, it will be seen where the trouble lies.

Typhoid Fever has broken out in the University of Cambridge, England, and many of the students have been sent home in conse-

quence. Caius College is the principal sufferer. The buildings are new, the sanitary arrangements perfect, the water pure, and the milk, which, from the suddenness of the outbreak, was at first suspected to be the source of infection, has been proved to be excellent in every respect. "The most feasible explanation of the outbreak," says the *British Medical Journal*, "is the escape of sewer air from the imperfectly trapped drains."

The *Lancet* says, "The worry to those engaged in literary pursuits, caused by the noisy transit of wheels over stones and granite, is injurious alike to thought and temper, and induces a tension only relieved when, as the Bigelow Paper has it, 'Silence, like a poultice, comes to heal the blows of sound.'"

"Silence, like a poultice," did not come quite quickly enough to ensure to the *Lancet's* literary man the proper amount of "relief" before he looked up his apt quotation. Mr. Hosea Biglow does not spell his name like the well-known Professor of Surgery, nor did he write the line quoted. The simile was applied at the time of the musical Jubilee in Boston, in 1869, and its author was not Prof. Lowell, but another "Professor," otherwise known as Dr. Oliver Wendell Holmes. It is too bad that a medical gentleman so well known should be robbed of his laurels by a medical journal, and, of all medical journals, by the *Lancet*.

The Anticipation of Post Partum Hæmorrhage.—Dr. Atthill has an article on this subject in the *British Medical Journal* of Nov. 1, 1873.

After enumerating the causes which commonly produce *post-partum* hæmorrhage, viz.:—Exhaustion of the uterus; exhaustion of the nervous system of the mother; the too rapid emptying of the uterus, whether as regards the fœtus or placenta; the failing to give due support to, and the injudicious manipulation of, the uterus after the expulsion of the placenta, he discusses the treatment of hæmorrhage arising from either of these causes. Throughout the article, he deprecates the indiscriminate and too implicit reliance upon ergot, and concludes as follows: "Give ergot in cases of labor in which you suspect that *post-partum* hæmorrhage is likely to occur, but do not rely on it exclusively. When symptoms, indicating that the power of the uterus is flagging, show themselves, prevent that exhaustion becoming excessive by the use of the forceps; when you do use them, use them as *aids* to the uterus, not as *substitutes* for its action. Give the uterus time to contract after the birth of the child, and to throw off the after-birth, keeping up in the interval firm pressure on the fundus with the left hand; then support the abdomen by the good old-fashioned binder, and the risk of *post-partum* hæmorrhage will be small. I do not mean to say that by the adoption of this or any other treatment *post-partum* hæmorrhage will be entirely averted; that is impossible, but the risk of its occurring will be reduced to a minimum."

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, January 3, 1873.)

OPERATIONS were performed in the following cases:—Cancer of Breast, Cancer of Lip, Tumor of Leg, Harelip, Felon, Nævus, Tumor of Eyelid, Caries of Carpus, Dysphagia, Tumor of Nates. During the week, Synovitis of Knee-joint.

Cancer of Breast—a spherical and painful growth of eight months' duration; exceptional, because the patient was a single woman, only 27 years old. It was adherent to the skin, and projected three inches from the surface. Dr. Bigelow included the disease and adherent skin in two semi-lunar incisions, and dissected the tumor from its attachments. It proved to be closely adherent to the pectoralis major. The axillary glands were not involved.

Cancer of Lip—in a man of 45. The disease was comprised in a superficial ulcer of the size of a five-cent piece. Dr. Cabot removed it by a V incision.

Large Myxo-Sarcomatous Tumor of Leg—in a woman 35 years of age. The disease first appeared two years ago, and has gradually increased. Within two months, it has doubled in size. It occupies the popliteal space, and extends laterally around the sheath of the tendon of the biceps, measuring eight inches in length by five in breadth; lobulated, quite firm and somewhat movable. Dr. Bigelow stated that, although it had both the general feel and the lobes of a fatty tumor, yet, if the patient could be relied on, the growth had been too rapid for fat. The alternatives were sarcoma, and, possibly, in part a bursal enlargement, which is not uncommon in this region. An exploratory incision was made into the most prominent portion of the tumor, which proved to be myxo-sarcomatous in appearance, being slimy, and somewhat resembling the raw flesh of a fish. Immediate microscopic examination confirmed this diagnosis. The operator remarked that the removal of this tumor, which was certain to recur at once, would involve so gratuitous a risk and delay to the patient, that it was hardly justifiable. The wound was united by sutures, and the question of amputation will be submitted to her.

Harelip.—An adult patient had been operated upon in infancy. There was now a notch in the lip, also a widely-dilated nostril on that side. Dr. Cabot made an incision into the nostril, cut a strip one-fourth of an inch wide from one side of the fissure and sewed up the remaining wound.

Necrosis of Jaw—in a child six years of age. The disease occupied the horizontal ramus; a portion only of the sequestrum was loose; this, with a neighboring loose tooth, was removed through the mouth, by Dr. Bigelow, with forceps.

Harelip—single, with cleft palate, in an infant. Dr. Cabot pared the borders of the fissure and united them, as usual, by sutures.

Felon—of ring-finger, with sloughing tendon and necrosed phalanges. Dr. Bigelow amputated just below the metacarpo-phalangeal articulation, saying that it was better to divide a phalanx than, by disarticulation, to open the palm.

Nævus—hairy, and on the side of the neck and face. Its area measured one and a half by two and a half inches. Dr. Cabot applied fuming nitric acid.

Epithelial Cancer of Eyelid—on the external surface of the lower lid of a woman, 50 years old. It was excised by Dr. Bigelow.

Caries of Carpus—in a man of 35. Pain and swelling on dorsum of hand for more than a year without known cause; latterly, both had increased. Dr. Cabot made an incision into the swelling and found pus and denuded bone, but none loose. The wound was left open and a water dressing applied.

Dysphagia—in a man, supposed to be due to the swallowing of a fish-bone, about a week since. On exploration of the pharynx, by Dr. Bigelow,

nothing abnormal could be seen or felt. He then passed a bristle probang down to the stomach twice, but no foreign body was drawn up. He then passed an ivory probang into the stomach. No stricture was detected, though Dr. B. remarked that a commencing stricture of the œsophagus often first announced itself by a sensation resembling that caused by the lodgement of a foreign body. On the other hand, the sensation of a pin or fish-bone was experienced long after such bodies had been dislodged. The patient was directed to report again.

Tumor of Nates—in a woman. It was situated upon the ischial tuberosity, and had been the source of inflammation, pain and annoyance for months. From its external appearance, Dr. Bigelow thought it promised to be an inflamed, fatty tumor. Excision verified this view.

Large Synovitis of Knee-joint—of two years' standing, in a man 32 years old. He had received the benefit of splints, compression, iodine and blisters, without much relief. Dr. Bigelow withdrew three and a half ounces of turbid synovia from the joint with Dieulafoy's aspirator, but thought he could have done it better with a small hydrocele trocar. H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE surgical operations of last Friday, January 9th, were as follows:—A Re-amputation of the Leg was performed by Dr. Cheever. The patient was an adult male. The primary amputation was performed in September last, the point of operation being the junction of the middle and lower thirds of the limb. Soon after the wound healed, the patient began to suffer great pain in the stump, and, three weeks ago, he entered the hospital for relief. There was no evidence of neuromata, but there was a sharp prominence of the end of the tibia which explained the pain. Rest, opium and local treatment had been tried without success, and amputation now offered the best chance for the comfortable adaptation of an artificial leg. The operation was performed in the middle third of the leg, anterior and posterior skin-flaps being dissected to cover the stump.

A case of Pistol-shot wound of the Thigh was operated on by Dr. Thorndike, the patient being a man of twenty-five years. The ball had entered in the middle of the thigh, posteriorly, passing downwards and forwards. The man entered the hospital two days after the injury, with the lower part of the thigh greatly inflamed. The bullet could not be traced. Now, after five days more, the inflammation had so far receded as to make an exploration practicable. Six inches below the wound of entrance, a somewhat elongated, deep-seated induration could be felt beneath the edge of the vastus externus muscle. On the supposition that this was the site of the bullet, the indurated region was cut down upon; it was found to be composed of fragments of the femur which had been splintered off by the ball. The missile, having thus comminuted the bone, had glanced and was lost in the soft tissues.

Dr. Cheever operated on a case of Caries of the Femur, in a young woman with a syphilitic history. Two sinuses in the thigh, one external and the other on the inner side, led to a denuded surface on the posterior aspect of the femur, which was softened and rough. The sinuses were enlarged, and the carious portion of the bone was freely exposed, so as to allow of the escape of any exfoliated particles.

In the three operations above described, application of Esmarch's method for controlling hæmorrhage was made. The limb was bandaged from the extremity of the toes to the groin with a rubber roller-bandage, three inches wide and five yards long, applied tightly. While the roller was still in place, a piece of rubber tubing, half an inch in diameter, was passed twice around the thigh above the roller and tightly tied in a square knot. The bandage was now removed. The effect was to deprive the limb of blood. In each

case, the method was successful; in the amputation, less than half a drachm of blood escaped, while the exploratory operation was absolutely dry.

Dr. Thorndike performed Perineorraphy in the case of a patient in whom rupture of the perinæum had occurred with her first labor, six years ago. Three labors had occurred since. The rent involved the perinæum to, but not through, the anus; and it had received no primary treatment. Dr. Thorndike removed the cicatricial tissue from the two surfaces of the fissure and apposed the refreshed edges with iron-wire sutures. Finally, he passed a silver-wire suture around the wound, encircling the other sutures, so as to give additional support and to diminish the tension of the parts.

Dr. Cheever performed an operation for Harelip in the case of an adult male, affected also with extensively fissured palate. The harelip was single and on the right side. To economize tissue, and to cover the large opening in the lip, Dr. Cheever operated as follows. The part of the lip toward the median line was split obliquely inwards from the margin of the mucous membrane. On the other side of the fissure, an incision was made from the ala nasi downward to the mucous margin of the lip, and this narrow part of tissue was divided in the centre, thus making two flaps, a quarter of an inch in width. The lower of these flaps was made wedge-shaped, and was dove-tailed into the slit on the other side of the fissure and retained by sutures, to make the line of the lip entire. The upper flap served, on being carried across above the lower, to complete the lip just below the nostril. Sutures and an hour-glass shaped piece of adhesive plaster held the parts in place.

Other operations, the details of which are omitted, were as follows:—Epithelioma of Leg, Necrosis of the Lower Jaw, Bony Cyst of the Lower Jaw, Phosphorus Necrosis of the Jaw, and three cases of Radical Treatment of Hydrocele.

On Tuesday, January 6th, Dr. Cheever performed a Plastic Operation to Cover the Testes, Bulb of the Urethra and Perinæum.

The patient froze his scrotum by lying exposed by the side of a railroad, when intoxicated, four weeks since. The testes are wholly denuded; the tunica vaginalis has sloughed off, and the tunica albuginea is granulating. The denudation extends up on the spermatic cords, and, also, on to the bulb and the perinæum.

Dr. Cheever cited a parallel case in the hospital three years ago, where the scrotum and one testis had been torn away, and the penis flayed by a revolving winch. In this case, the testicle was pocketed by Dr. Cheever under the skin of the groin. The patient pursued his daily work without inconvenience. But when seen, some months later, the testis appeared softened and atrophied. A similar fate was apprehended for the testes in the present case, but the only other alternative was castration, and the patient had a right to try any chance to save his virility.

In neither of these cases was there any trouble with the urethra.

Operation.—The puckered and contracted remnants of the skin of the scrotum and perinæum were dissected up, freshened, pared and matched so as to cover, without tension, the bulb and the perinæum. The testes, already separated by the sloughing away of the septum, were drawn aside into either groin. A large, semi-circular flap of skin, with a broad root toward the perineal and lower sides of the thigh, was dissected up from each groin, and the testes allowed to fall into the raw surface and rest against the base of the flaps. The skin flaps were now folded over the testes, and stitched to the new skin of the urethral bulb, to the skin near the pubes, and to the fascia of the denuded surface on the groins; silver sutures were used. The urethral bulb, perinæum and testes were completely covered in by one continuous layer of apposed flaps of skin; and the denuded surfaces on the outer aspect of either groin were left to granulate. By adducting the feet, bandaging together the knees and placing a large pillow under them, all the new flaps were freed from tension. Cold water dressing was applied, and a catheter was directed to be passed regularly. F. W. Draper.

Correspondence.

YELLOW FEVER IN SHREVEPORT, LA., 1873.

NEW ORLEANS, December 25, 1873.

MESSRS. EDITORS,—My observations upon the epidemic diseases of the Mississippi Valley during the present year (1873) would be incomplete without some account of the recent severe epidemic of yellow fever in Shreveport, La. In the present communication, I desire to record such authentic facts as I have been able to gather from various sources.

Location, Population and Medical Topography of Shreveport.

The city of Shreveport is situated on the left bank of Red River, about thirty miles below the great raft, just above the thirty-second degree of North Latitude, in the parish of Caddo.

According to the United States Census of 1860, the population of Caddo Parish was 4,733 whites, 69 free colored and 7,338 slaves; total, 12,196. The population of Shreveport included in the preceding statistics was, white male, 1,287; white females, 859; free colored males, 20; females, 24; aggregate, 2,190.

The United States Census of 1870, shows a considerable increase, and, according to the *Shreveport Times* of the 15th of November, the population fluctuates between ten thousand in the summer, and fourteen thousand in the winter, and is composed largely of unacclimated persons, from different parts of the United States and European countries. Drs. Bruns, Choppin and Davidson, of New Orleans, who visited Shreveport during the recent epidemic, in their report to the Howard Association, thus describe the medical topography and sanitary condition. "The business portion of the city, consisting of compact blocks of stores and warehouses, chiefly of brick, fronts the river on a bluff, considerably elevated above high-water mark, and sloping downwards for a few hundred yards, rises, with occasional undulations, into a semi-circle of hills, deeply ravined, around which is scattered a large suburban population. The natural advantages for drainage are excellent, but these have been utterly neglected, and a rain of a few hours converts the town into a morass. Most of the blocks, in the heart of the city, are bisected by alleys, into which the refuse and garbage of the houses are thrown. A sanitary police is unknown, and the only scavengers are hogs, which roam the streets at will, turning them into cess-pools, destroying the pavements, and exposing fresh surfaces of earth everywhere to air and sun."

Sanitary Condition of Shreveport.

So early as January, 1873, the accumulated filth in the alleys of the city, which intersect the blocks, began to be offensive; spring came and passed, and there untouched, lay, in the almost *tropical sun* of summer, the accumulated filth of many months, in the very heart of the city. The most public thoroughfares of the city were neglected and uncleaned; stagnant water, rotten garbage and animal excrement filled the gutters; the refuse of hotels and boarding houses in every portion of the city ran out of the private sewers into the streets, and there rotted and contaminated the atmosphere; dead dogs, cats and rats remained where they had fallen, and the streets and alleys became their cemeteries. The whole city is said to have been enveloped in a disgusting odor, from midnight to day.

Such is said to have been the sanitary condition of Shreveport, at the time of the breaking out of the epidemic; and if it be possible to generate, in this latitude, yellow fever, by a combination of filth, heat and moisture, the conditions were certainly present for the origin of the pestilence *de novo*.

History of the Epidemic.

The spring and early part of the summer appeared to have been as healthy as usual; the malarial fevers of the country did not attract special attention, either by their numbers or severity. The heat of June and July was severe, and, in August, the number of cases of malarial fever began to increase and the type was more malignant.

It is said that the first case of yellow fever, which attracted attention, died on the 18th of August. On the night of the 19th of August, a reporter entered the *Times* office and announced that three men had fallen dead at the front of the Mechanics' Exchange, on Texas Street. From subsequent inquiries, it proved that of three men who had been wandering about sick, two lay down and died, and that the other expired before he could be got to the hospital. The case which died on the 22d of August is said to have been, without doubt, yellow fever. From this date, the disease spread rapidly, and its terrible mortality induced the belief that it was different from the ordinary malarial fever of this region. Towards the first of September, persons began to leave the city; the alarm spread rapidly through the country, business began to decline, and a feeling of gloom pervaded all classes.

On the night of the 1st of September, the physicians assembled in the office of Dr. Snell, and, after a prolonged deliberation, rendered their final judgment that yellow fever existed, but not in an epidemic form. The publication of the proceedings of this meeting, in the *Times* of the next morning, was almost immediately followed by the precipitate flight from the city of all who were able to leave. "Every train that went out was crowded to overflowing, and hundreds stood by to await the next one. A terrible dread seemed to seize the people, in the presence of the invisible death that was among them, and, in a few days, the city seemed almost depopulated; the stores were closed, and the streets were virtually deserted." A call was made for the organization of an association to look after and provide for the sick poor, and, on the 3d of September, the Howard Association of Shreveport was organized. The disease continued to increase, and, up to the evening of the 13th of September, there had been one hundred and forty-six deaths. The epidemic, at this time, was approaching its climax. There were not over four thousand souls, white and black, remaining in the city, and of these not less than eight hundred were sick. "It seemed as if no one was recovering; the doctors were worn out and disheartened; the streets were absolutely abandoned and silent, and one might walk squares without meeting a living object; every store and place of business was closed; nobody was to be seen, except at the headquarters of the Howard Association. There were scarcely enough men left to nurse the sick; we no longer had funerals; the hearses, followed by one or two carriages, dashed through the streets, like sections of artillery in a battle, seeking a position; enough men were drummed up, often with difficulty, to lift the coffin into the hearse, and the body was borne away to the cemetery as swiftly as decency would permit. This was the case even with our most prominent citizens."

On the 15th of September, the mortality was greater than at any time during the epidemic; on that day, the deaths numbered thirty-nine. For many days after, the number fluctuated between fifteen and twenty; whole families were swept away, and commercial firms, partners and clerks, were literally blotted out of existence. About the 17th of September, the fever began to attack the suburban population.

There was a decided diminution in the average of deaths per day after the 24th of September, and, on the 30th, the epidemic in the city showed signs of abatement. During the month of October, the fever slowly declined, and intermittent fever and dengue made their appearance, and, on the 15th of November, all vestiges of the disease had disappeared.

Statistics of the Epidemic.

The following figures are mere approximations:—Population, July previous to epidemic, 9,000; during the epidemic, between 4,000 and 4,500. Of these, 1,500 were negroes.

Number of cases of fever, 2,600; number of deaths, 759. Of these, about 120 were negroes.

Mortality, about 30 per cent.

It is believed that a larger proportion of persons recovered from black vomit in this than in any previous epidemic.

Respectfully, JOSEPH JONES, M.D.

Medical Miscellany.

APPOINTMENT.—Dr. James A. Latimer, of Cambridge, has been appointed, by the Governor, physician to the State Prison, in place of Dr. A. P. Hooker, recently deceased.

DR. BARNES, Surgeon-general U. S. A., has recently been elected, by a vote of forty-two out of forty-six, a corresponding member of the Academy of Medicine of France.

THE EFFICIENCY OF ENEMATA.—Gustav Simon has succeeded in demonstrating that a stream of water forced into the rectum by means of a syringe may be made to penetrate the entire length of the large intestine, and possibly extend, also, into the small intestine. His experiments were performed upon two separate patients, each of whom happened to have a fistulous opening in the ascending colon, near its junction with the cæcum.—*Archiv für Klinische Chirurgie.*

ARTIFICIAL PRODUCTION OF RICKETS AND MOLLITIES OSSIUM.—C. Heitzman has shown by experiment that mollities ossium and rickets are identical processes, which may be produced artificially in animals by giving them lactic acid. In carnivora, the continued use of lactic acid causes first rickets and then mollities ossium, while in herbivora it produces mollities at once, without rickets.—*London Medical Record.*

EARLY PREGNANCY.—Mr. Macnamara, in a late number of the *Indian Medical Gazette*, relates a case of a mother only ten and a half years old. The labor was six hours long, and the mother proved an excellent wet nurse. There were five generations present in the same house. Mr. Macnamara has often known instances in which Hindoo females have had children at twelve and thirteen years of age.

FORMULA FOR UNGUENTUM ALTHÆÆ, OR MARSHMALLOW OINTMENT.—℞. Lard, 1 pound; curcuma, 2 drachms; water, 4 drachms; yellow wax, burgundy pitch, of each, 6 drachms. Boil the lard, curcuma and water together, until all the moisture has disappeared; then add the wax and pitch, strain while hot, and stir while cooling.—*Prussian Pharmacopœia.*

RARE INJURY.—In Vienna, a man was recently entangled in some tackle moved by steam power, and was drawn with great rapidity against a cross-beam, where his clothing caught. Here his whole right upper extremity and shoulder-blade were torn off, and he fell to the ground, minus these parts. The wound healed at the end of the seventh week without a bad symptom.—*Wiener Medizinische Zeitschrift*, Nov. 11, 1873.

INHALATION OF OXYGEN IN THE TREATMENT OF HYDROPHOBIA.—Laschkewitsch administered inhalations of oxygen to a peasant who, ten weeks before, had been bitten by a mad wolf. The tetanic muscular contractions ceased, the cyanosis disappeared, and the exacerbations of violence gave place to a quiet, gentle condition. A fatal result followed, but it was attributed to the inattention of the nurses, who discontinued the oxygen inhalations.—*Dublin Medical Press and Circular.*

TOPICAL USE OF CHLORAL.—MM. Beaumetz and Hirne employ chloral as a caustic application in the treatment of inveterate specific or non-specific ulcers. The solution they use is composed of:—Hydrate of chloral, five grammes, distilled water, twenty grammes. M. Martineau employs a one per cent. solution of chloral as a dressing for bed sores in typhoid fever. Dr. Erasmus Paoli has also obtained good results from the employment of an aqueous solution of hydrate of chloral (10 grammes to 30 grammes of water) in the dressings of soft chancres and of chancrous, even phagedenic, buboes; although painful, the application of this solution will be found less so than the touching with a stick of nitrate of silver.—*Irish Hospital Gazette.*

IMPERFORATE HYMEN.—D. Lloyd Roberts, Manchester, England, reported before the British Medical Association, at its last session, the notes of this case, as follows:—The patient was a girl, aged twenty. Under chloroform, a small exploratory trocar was introduced, and after it a larger trocar, through which 84 ounces of thick fluid escaped; and, during the subsequent fortnight, from 15 to 20 ounces exuded. Some feverish symptoms and abdominal pains set in, but subsided; and, subsequently, the opening was enlarged with bougies and the membrane divided on each side. The patient recovered.—*The Obstetrical Journal of Great Britain and Ireland.*

TOO AERIAL.—At a recent trial of some tea merchants at Birmingham, for the sale of adulterated tea, it was admitted by the defence that the articles in question contained a considerable quantity of both *iron* and *sand*, but it was argued that these substances were either blown on the leaves while growing, or taken up in process of drying. This argument appears to have struck the judge as too aerial for credence, and he quietly remarked that "if the soil of China were so very rich in iron, it would pay to import it for smelting."

ANTI-ASCARIDES.—Fifty years ago, none of my family came to an untimely end from injections of carbolic acid, which is now thought to be certain death to a PIN WORM.

MESSRS. EDITORS,—Will some of your readers kindly inform me as to the effect exerted by *camphor dentifrices* upon the teeth. I remember to have heard it said that the essential oil of camphor readily penetrated the enamel, diminishing its hardness, and thus inducing caries, and have been somewhat surprised to learn that many preparations for the teeth sold by our druggists, contain a large amount of powdered camphor, some being composed almost exclusively of this article. DENS.

MESSRS. EDITORS,—In your issue of Feb. 20, 1873, occurs the following:—

"Mr. Bryant warns against the so common use of coffee as a vehicle for quinine. When a solution of the sulphate of quinine is put into tea or coffee, there occurs a decomposition of the salt, and the almost insoluble and insipid tannate of quinine is formed. This compound is almost inert, and the administration of quinine in this way, therefore, is one of the worst ever devised."

In the JOURNAL of yesterday we read:—

"It is not generally known that the bitter taste of quinine may be effectually concealed, while the efficacy of the drug is retained, by combining it with tannic acid. Ten grains may thus be deprived of its taste by one and one-half grains of the acid."

Will some one who knows inform us whether tannate of quinine is worthless, and oblige INQUIRER.

Boston, Jan. 9, 1874.

DIED,—In Newton, Jan. 6, Dr. T. P. Robinson, aged 48.—In North Brookfield, Jan. 6, Dr. Joshua Porter, aged 64.—In Santa Barbara, Cal., Jan. 6, of consumption, Dr. P. A. O'Connell, of Boston, aged 39.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending January* 3, 1874.

Boston, 153—Charlestown, 10—Worcester, 13—Lowell, 23—Milford, 4—Cambridge, 18—Salem, 7—Lawrence, 4—Springfield, 13—Lynn, 12—Gloucester, 9—Fitchburg, 2—Newburyport, 5—Somerville, 5—Fall River, 31—Pittsfield, 7. Total, 316.

Prevalent Diseases.—Consumption, 68—scarlet fever, 25—pneumonia, 24—typhoid fever, 13.

Of the deaths from scarlet fever, nine were in Fall River.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 10th, 139. Males, 70; females, 69. Accident, 4—apoplexy, 4—disease of the brain, 4—bronchitis, 5—burned, 1—consumption, 27—convulsions, 3—carbuncle, 1—croup, 1—cyanosis, 1—cerebro-spinal meningitis, 1—diabetes, 1—diphtheria, 1—debility, 4—dropsy, 5—dropsy of the brain, 2—dyspepsia, 1—erysipelas, 3—typhoid fever, 4—scarlet fever, 12—disease of the heart, 4—disease of the liver, 1—inflammation of the lungs, 14—congestion of the lungs, 3—marasmus, 3—old age, 2—peritonitis, 1—pleurisy, 1—premature birth, 3—puerperal disease, 5—rheumatism, 2—scrofula, 1—smallpox, 1—teething, 1—tumor, 1—ulcers, 1—whooping cough, 1—unknown, 5.

Under 5 years of age, 53—between 5 and 20 years, 14—between 20 and 40 years, 29—between 40 and 60 years, 22—over 60 years, 21. Born in the United States, 97—Ireland, 24—other places, 18.

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Original Communications.

CASES ILLUSTRATIVE OF MASTOID INFLAMMATION.*

By J. ORNE GREEN, M.D.

Lecturer on Otology in Harvard University; Aural Surgeon to Boston City Hospital.

I.—F. E., aged 8 years, was seen on July 3d, 1871, at the request of Dr. E. H. Clarke, who was unable to visit her when first called. The patient, whose mother had died of phthisis, had been considered well, with the exception of slight occasional otorrhœa on each side, till some four weeks before, when she had an attack of intense inflammation of the left ear, followed by high fever, great prostration and violent chills, which had continued daily, with increasing severity, for seventeen days. Intermittent fever had been diagnosticated, and she had been on low diet, pilules and quinine without relief. No attention had been paid to the ear, till a gradually increasing swelling over the mastoid forced that organ on the attention of the parents.

At my visit, she was in bed, so weak that she could not move; extremely emaciated; moaning continually and screaming at the least noise or light; intelligence good; pulse 130, weak; skin hot and dry; tongue coated. Behind the left ear was a large, diffuse abscess; the left meatus was filled with pus. Under ether, and with the assistance of Dr. Mann, who saw her then for the first time, an incision, two inches long, was made over the mastoid, and six ounces of thin and most offensive pus were evacuated. The whole bone was denuded for four inches towards the vertex and one inch behind the mastoid, but was not softened at any spot. A cloth tent was inserted, and stimulants and narcotics ordered. Examination of the ears showed both drum-membranes completely destroyed, but the tympana were free from granulations or cavities, as far as could be ascertained by the probe.

For the next week she improved slowly; the chills recurred but once, although there were several times a day exacerbations of fever; the appetite improved and the pulse came down to 100. A small abscess formed over the left scapula, and was opened. On July 11th, there was a recurrence of chills, not severe, with cough and brownish expectoration, rapid respiration and accelerated

* Read before the Boston Society for Medical Observation.

pulse, apparently relieved the next day by extending the original incision downwards, and evacuating the pus which had formed there. A few days afterwards, great puffiness of the eyelids and a diffuse swelling over back of neck showed themselves; this swelling of the neck gradually extended over the left side, and, after five days, an abscess formed on the side of the neck and broke. This swelling of the neck was followed by extreme distention of all the superficial veins of the face, neck and chest, which still remains, more than two years afterwards. An attack of pneumonia now supervened, but, fortunately, was not severe; and this was followed by a post-pharyngeal abscess, which burst, and by abscesses on the opposite side of the neck, the occiput and temple, and by facial erysipelas. The wound over the mastoid healed, but had to be opened twice, under ether, on account of fresh collections of pus; the bone was not found softened at any time. Notwithstanding all of these complications, the patient gradually improved, and, early in September, I ceased regular attendance. On October 20th, she was brought to my office; she had had, in the mean time, partial hemiplegia on the right side, the opposite side from the ear-disease, together with ptosis of the right eyelid; she was then recovering from both, but there was still very perceptible weakness of the right arm and leg. She was in good health, and more fleshy than ever before. The right side of the face was much fuller than the left, and the superficial veins were very much enlarged; there was a fistula over the mastoid, with some discharge, but no bare bone could be detected. The fistula continued to discharge, and, on January 9th, 1872, the parents consented to an operation, when, with the assistance of Dr. John Homans, the mastoid was exposed by an incision through the fistula, and a small opening found to communicate with the cells; the walls of this opening were carious, and at the depth of an inch, on the inner wall of the cells, bare bone could be felt. The carious walls of the fistulous opening were removed with a gouge, and warm water syringed through the tympanum; the inner wall of the cells was not touched. From this time, everything went smoothly; no bad symptoms followed the operation, and in ten days the wound had entirely healed, and the patient has remained well to the present time, as far as the mastoid is concerned; the tympani remain in the same condition as at the first report, both of the membranes being lost; and the child is subject, when she takes cold, to a slight discharge from the exposed mucous membrane.

II.—*Mastoid Inflammation; Trephining of the Healthy Bone on account of Dangerous Symptoms; Recovery.*—A. A., aged 65, sister of charity, seen in consultation with Dr. Geo. S. Hyde, on the 8th of June, 1872, began to suffer with severe pain in the left ear six weeks previously; one week after the pain began, a free discharge from the meatus showed itself, and continued up to the time I saw her. The severe pain in the ear was but little relieved by the discharge,

and she suffered constantly with pain, referred chiefly to the mastoid, but extending somewhat over the left side of the head; with this, there had been marked constitutional disturbance, high pulse, hot, dry skin, anorexia and, within a fortnight, frequent nausea and occasional vomiting. At no time had there been marked swelling around the ear, or headache, other than nervous, to which she had been subject for years. There were no chills. During the whole disease, the patient had been confined to her bed, and was extremely prostrated.

Examination showed an abundant purulent discharge from the left meatus; the left membrana tympani swollen and inflamed, with a large perforation on the posterior segment, equal to one-fourth of the whole membrane. The tympanic mucous membrane was granular; by Valsalva's inflation, air was readily forced through the perforation. There was no swelling, or even tenderness, around the ear or over the mastoid. The pain, which was described as dull and heavy, with an occasional lancinating shoot, was referred to the mastoid. Hearing was completely lost for both watch and voice. The skin was hot and dry, the tongue coated, the pulse 120, and weak.

The severe pain in the ear and the marked constitutional disturbance pointed to an active inflammation still going on in that organ; the large perforation of the membrana tympani and the pervious condition of the Eustachian tube precluded the tympanum proper from being the seat of retained pus, and the mastoid cells were alone left as the seat of the disease. The prostration of the patient demanded immediate relief, and I advised perforation of the mastoid cells.

June 9th.—With the assistance of Drs. John Homans and G. S. Hyde, the patient was etherized, and a perpendicular incision, one and a half inches long, made over the mastoid to the bone. The tissues were of their normal thickness and not œdematous; the bone normal, and without any sinus. After incising the periosteum, it was scraped aside, so as to expose the bone, and a few minute vessels were compressed and a ligature applied to the posterior auricular artery. With a triangular borer, five thirty-seconds of an inch in diameter, I then perforated the bone, on a level with the middle of the meatus, to the depth of one third of an inch, before I felt it enter the cells; on withdrawing it, about two drachms of inoffensive pus were evacuated. With a small-pointed syringe, warm water was forced through the perforation in the bone and returned through the meatus, and this was repeated till the cavity was cleansed. A cloth tent was inserted in the opening, and the wound covered with a wet compress.

Six hours after the operation, the patient was very nervous from the ether, and complained of some pain in the ear, but the pulse had come down from 120 to 108. Ordered chloroform, gtt. xx.

June 10th.—Slept well, without pain; felt much better. Pulse 88. Skin cool and moist. Appetite much improved. Tympanum syringed through wound and meatus. Allowed beef-tea and an egg.

June 11th.—Passed a "delightful" night, free from all pain, except an occasional dart; took no chloroform. Pulse 88. Slight discharge of pus from wound. Tympanum syringed as before.

June 12th.—Yesterday afternoon, sharp pain, as of old, felt in the ear, which continued through the night, requiring chloroform; but it passed off toward morning. Pulse 88.

June 13th.—Passed a good night; no return of the pain. Pulse 88; tongue clean. Appetite good. Directed the tympanum to be syringed with warm water three times a day.

June 15th.—No pain, except for three hours last night. Discharge from both meatus and wound slight. Sat up to-day for the first time for seven weeks. Directed that the ear be syringed twice a day, and a solution of sulphate of zinc (gr. i. to ʒ i.) be instilled at night.

June 18th.—Patient reported that, on the 16th, pain returned in the ear, accompanied by a singing; at the same time, there was severe pain in the frontal region and left eye. These pains continued through the 17th. On examination, the discharge was found to be much increased in quantity. The wound was looking well, but some fibrous tissue was sloughing; tongue clean; pulse 84; abdomen tympanitic from flatus; watch not heard on contact. Omitted the instillation of zinc, and ordered poultice to wound and two cathartic pills.

June 19th.—Free from pain; slept well, and this morning bright and cheerful. Pulse 82. To douche the tympanum three times a day with warm salt water. ℞. Quiniæ sulph., gr. i., ter die.

June 20th.—Sat up all day; some pain in the ear and through the back of head and left eye for several hours, not so severe as before. Pulse 72. Appetite and strength improving.

June 23d.—Quinine omitted, on account of headache and ringing in both ears; ligature removed and poultice omitted. Ordered iron.

June 26th.—Discharge from wound and meatus diminishing; scarcely a twinge of pain.

July 7th.—Rode out for the first time. No pain; very little discharge. Membrana tympani less swollen and granulations diminishing.

July 19th.—Occasionally slight pain in ear; no discharge from meatus, and the perforation healing. Wound healed, except a small fistula, which still discharged considerably, and through which bare bone could be felt. W. l. on contact.

From this time, the ear-disease progressed favorably. The membrana tympani healed perfectly, and the discharge from the mastoid opening gradually ceased. The hearing, by the first of August, had improved to W. l. ¾″. V. l. 10′. During the latter part of August, there were nausea and vomiting several times, with occasional ver-

tigo, pain in the stomach, back and lumbar region, and some swelling of the feet, but the patient had been subject to such attacks for years, and no disease was discovered; an analysis of the urine afforded no explanation. During these attacks of vomiting, there was a discharge of blood, in small amount, from the mastoid sinus.

I did not see the patient again till October 22d, 1873, nearly fourteen months afterwards, when she was complaining of pain in the ear, due to a slight cold, and which soon passed off without treatment. She reported that, during the year, she had had no trouble with the ear, except slight and constant subjective noises. Her health had been about as good as usual; she had occasional sick-headaches as ever, some chronic bronchitis, and, occasionally, a great determination of blood to the head, without known cause. During severe vomiting, she had sometimes slight bleeding from the mastoid opening. Examination showed the membrana tympani without cicatrix, very much thickened, and drawn in and immovable. Over the mastoid, was an opening half an inch deep and one eighth of an inch in diameter, lined with a continuation of the outer skin, which became, in the deeper parts, very delicate, and resembled mucous membrane; no opening existed through this into the mastoid cells. W. l. $\frac{3}{4}$″. V. l. 8′.

III.—*Mastoid Inflammation; Fistulous Opening through the Bone; Wilde's Incision; Rapid Recovery.*—C. G., aged 15, was sent to me on July 24th, 1872, with the history that, two months before, during an influenza, he had had acute inflammation of the ear, with discharge. Since that time, the discharge had continued with a constant but slight pain in the ear, annoying tinnitus, and slight, constant vertigo, till yesterday, when nausea and vomiting followed a marked increase in the vertigo; there had been no headache. When I saw him, the only symptoms complained of were a slight, almost constant pain in the left mastoid, with an occasional slight dart into the ear, a staggering gait, with a marked tendency to fall toward the right side, constant nausea and occasional vomiting. The countenance was anxious; pulse 120, of fair strength; tongue clean. Examination of the ear showed a purulent inflammation of the tympanum and a perforation of the drum-membrane, with large polypoid granulations on its edges; the mastoid not red or swollen to the eye, but to the touch slightly fluctuating and a little tender. Watch not heard on contact. Extreme vertigo, with vomiting, resulted directly from the examination.

Under ether, the tissues over the mastoid were freely incised through the periosteum, and, at the extreme lower part of the bone, a small fistulous opening passed into the mastoid cells; through this, thick grumous pus ran out. A tent was inserted in the wound, and douching of meatus and wound with warm water was advised. The vertigo and vomiting were immediately and entirely relieved; the pulse became normal within twenty-four hours. Four days after the

operation, the patient not having been under observation, the wound was found to have healed, and the pain in the mastoid was slightly increased. On this account, the tissues were again incised, under ether, and the bone, which had softened around the previous fistula, was cut through with a knife, opening the cells for a distance of a quarter of an inch; the tympanum was then syringed through the fistula. Examination of the ear, at this time, showed that the inflammation of the drum-membrane was much less, and the polypoid granulations had disappeared. W. l. $\frac{1}{4}''$.

From this time, the recovery was rapid; two days after, the discharge, both from the wound and meatus, had ceased, and the perforation of the membrane was found to have healed. W. l. 3″.

Six days after, all pain and subjective noises had ceased, and the hearing was rapidly improving. W. l. 20″.

I have selected these three cases as illustrative of the more serious forms of mastoid disease; they show the course which the disease may take and the way nature seeks to relieve herself, and thus point out the line of treatment.

Mastoid inflammation, although never primary, is now very properly described as a distinct disease, as it is always serious, and not uncommonly fatal, from involving the brain. The mastoid cells are but a part of the tympanic cavity, lined, like the rest of the cavity, by a delicate mucous membrane, which is in such close connection with the periosteum that the two cannot be separated or even distinguished. An inflammation of the tympanum proper usually implies, also, an inflammation of the mastoid cells of a greater or less intensity, and if this inflammation is so severe as to cause an abundant secretion of pus, an outlet for the matter from the cells can only occur by its breaking through the bone, either externally or internally, while the matter in the tympanum proper only requires to break through the delicate drum-membrane. In the majority of cases, the inflammation subsides and the pus is absorbed, but in some cases the inflammation is too intense for this to occur without the evacuation of the pus, and then nature attempts to form an outlet, as is seen in the first and third cases.

An examination of macerated bones shows, on the outer surface of the mastoid, numerous openings which serve for the passage of blood-vessels into the bone, and some of these undoubtedly are in communication with the circulation of the mucous membrane. Along these vessels the inflammation is transmitted from within to the external periosteum, and, as pus is only formed in the later stages of an inflammation, the first pus formed here will be next the bone where the inflammation is oldest. The pus having formed on the external surface of the bone, it meets with very firm obstacles to reaching the skin, for the whole mastoid serves for the attachment of the sterno-mastoid tendon, and the pus must work its way through this very

firm fibrous tissue before coming to the subcutaneous tissue. This accounts for the very extensive burrowing of pus in the first case, for three weeks, without its having formed an outlet.

In examining a large number of temporal bones, it will be seen that the thickness and consistency of the mastoid varies very much, and also that, in some, the openings on the external surface are much larger and more numerous than in others. In some bones, it is impossible to see any of these foramina. Thus another obstacle exists here to the exit of the pus, for while, in the cases just spoken of, the bone becomes inflamed, softened and disintegrated around the opening through which the inflamed vessel or vessels pass, in the latter cases a new opening must be formed, a longer time is required, and the patient consequently longer exposed to the risks of retained pus. In the second case reported, it is probable that the unusual thickness of the bone (one-third of an inch) and the absence or very small size of these foramina, prevented any external inflammation; and it is also probable that this is the explanation of those cases in which, after death, the inner wall of the cells next the brain is found carious, while the external wall is healthy. This second case is also peculiar, from the fact that there was no tenderness on pressure of the bone, which I can only explain by supposing that the bone was so very solid that it had not become inflamed. The operation of trephining under these circumstances is, I believe, new; but the condition of the patient was so critical that I had no hesitation in advising it. In the first case, I have no doubt that weeks of suffering and danger would have been avoided if consent could have been obtained to a similar operation.

In the treatment of recent mastoid inflammation, we can generally hope for the subsidence of the disease by the local abstraction of blood and by appropriate treatment to the original cause of the trouble, the inflammation of the tympanum proper. Two to four leeches over the mastoid will often so reduce the congestion that the disease subsides, and warm fomentations to the bone will help the resolution. At the same time, if the tympanum contains pus, this should be evacuated. As a rule, the drum membrane will rupture of itself in a short time; but if such a rupture does not take place, the membrane should be incised to give an exit to the pus, and the drum-membrane and tympanum treated by douching with warm water and by the use of the air-douche, to keep the tympanum free from the irritating matter.

If, however, an external periostitis has been set up, a free incision should be made down to the bone, for, if pus has already formed, it should be evacuated as soon as possible to prevent unnecessary injury to the bone; and, if no pus has formed, the relaxation of the swollen tissues and the bleeding from the incision both relieve the pain and assist in causing the inflammation within the cells to subside. At the time of the incision, the bone should be examined to

see if any fistula exists in it, and if such is found it should be exposed and thoroughly syringed out. The place at which this fistula commonly forms is of considerable importance in aiding us in our search and also in deciding where the bone ought to be trephined, in case such an operation becomes necessary. In all of the cases which I have seen, this fistula has been nearly in the middle of the mastoid, never at the extreme tip nor at the extreme upper part, although in both of these places the bone is very thin.

While the fistula is being sought, the bone should be tested, and it will frequently be found to be so softened that a probe, director, or even a knife can be thrust through into the cells, thus evacuating the pus. If the bone around the fistula is softened, the opening should be enlarged till healthy bone is reached. The first case is interesting as showing how necessary the removal of the softened bone is for a cure, for here the disintegrated bone, although so fine as to escape observation with a probe, kept the wound open for several months, while the removal of the affected bone with a gouge resulted in a cure within ten days. The second case shows how long the mastoid cells may be intensely inflamed without affecting the bone, and in these cases the operation of trephining is especially indicated, as the pus, if meeting with unusual obstacles to its escape externally, is more apt to affect the other walls of the cells and cause fatal disease of the brain.

The great object of treatment in mastoid inflammation is, then, the fulfilment of the well recognized law of surgery to give free exit to the pus.

In a clinical lecture on Jaundice, Prof. Loomis mentions the following points *(N. Y. Medical Record,* Nov. 15, 1873):—

To determine the situation of the bile-ducts, draw a line from the right nipple to the umbilicus, and the point where this line crosses the free border of the ribs will indicate it very nearly.

Acute jaundice may arise from any cause producing obstruction of the bile-ducts.

Among these is an acute catarrhal inflammation of the ducts. This acute inflammation of the mucous membrane of the bile-ducts is not primary, but is usually propagated from an inflammation in the duodenum. Inflammation of the duodenum is almost always associated with gastric catarrh as the primary disease.

Acute jaundice may also arise from abscess of the liver. The first question one would ask, if suspicion turned in the direction of abscess, would be, has the patient ever had dysentery? Dysentery is the most common cause of hepatic abscess, or, rather, abscess of the liver most frequently occurs with dysentery. It is believed by some that it produces abscess of the liver by embolism, but Prof. Loomis is quite sure that in the majority of cases the embolus cannot be found post mortem; hence he doubts the correctness of the statement that the abscess arises from embolism.

Progress in Medicine.

REPORT ON PHYSIOLOGY.

By H. P. Bowditch, M.D.

(Concluded from page 64.)

Bile.

Von Wittich (*Pflüger's Archiv*, vi. p. 181) made observations on the human bile obtained from a patient with a biliary fistula, caused by the impaction of gall stones in the cystic duct. For some time after the opening of the fistula, the whole of the bile was discharged through it, none entering the intestines, as was evident from the appearance of the fæces. The total quantity discharged daily was 532 cc., an amount considerably below Bidder and Schmidt's estimate (1300 grammes), derived from experiments on dogs, but falling within the limits assigned by Ludwig for the daily secretion of the human bile (160 to 1200 grammes).

Von Wittich also examined the bile thus obtained with regard to its power of converting starch into sugar, and found that it possessed this power in a high degree. In consideration, however, of the wide distribution of sugar-ferments through the body, it seems quite possible that the bile may have acquired this property from some of the tissues with which it came in contact in its passage through the open wound.

The method of experimenting recommended by the author is similar to that proposed by Grünhagen to demonstrate the effect of pepsin. On a coarse filter, kept by a water-bath at a temperature of 40° to 50° C., a stiff starch paste was placed. The addition of a few drops of a solution of the sugar ferment obtained from the bile soon caused a fluid to pass through the filter, and, in this fluid, sugar could be readily detected.

Röhrig has made some experiments (*Stricker's Jahrbücher*, 1873, p. 240) on the mechanism of the secretion of bile, the subjects of the observations being dogs and rabbits, curarized and kept alive by artificial respiration. A canula was placed in the hepatic duct, the cystic duct was tied, and the rate of the secretion was determined by counting the drops as they fell from the canula. The following are the most important results :—

I. Compression of the portal vein and the hepatic artery at the same time stops the secretion at once. A compression lasting more than one minute produces fatal results.

II. Compression of the portal vein alone diminishes the secretion greatly, but does not stop it.

III. Compression of the hepatic artery alone diminishes the secretion slightly.

IV. Ligature of the aorta, below the diaphragm, diminishes and finally stops the secretion.

V. Ligature of the aorta, below the cœliac axis, increases the secretion.

VI. Ligature of the inferior vena cava, above the hepatic vein, diminishes and finally stops the secretion. This shows that the secre-

tion does not depend exclusively on the height of the blood-pressure in the capillaries of the liver, for ligatures applied as in V. and VI. must, in both cases, increase this pressure, while the secretion is in one case increased and in the other diminished.

VII. Chemical, mechanical and electrical irritation of the mucous membrane in all parts of the alimentary canal, and of the liver itself, has no effect on the secretion of the bile.

VIII. Injection into the stomach of products of digestion, taken from the alimentary canal of another animal, increases the secretion.

IX. Diarrhœa is often accompanied by a very rapid secretion.

X. Cathartics, viz. croton oil, colocynth, jalap, aloes, rhubarb, senna, Epsom salts, calomel and castor-oil, injected into the small intestine, cause an increased secretion of bile, which is apparent before the purgative action begins. (This result is diametrically opposed to that obtained by the Edinburgh committee of the British Medical Association, appointed to investigate the action of mercury and other drugs on the biliary secretion. These observers found that purgation, however produced, invariably diminished the quantity of the biliary secretion.) Senna and rhubarb, when injected into the mesenteric veins, increase the secretion of bile, which seems to show that these two drugs act as chologogues independently of their cathartic power. That cathartics, however, may act indirectly as chologogues, in consequence of their increasing the vascularity of the intestines, seems evident from the following results of experiments on the nervous system :—

XI. Section of the splanchnic nerves causes a temporary increase of secretion.

XII. Section of the cervical cord causes increased secretion (but not if a cathartic has been previously given).

XIII. Irritation of sensitive nerves diminishes the secretion.

XIV. Suspension of respiration causes at first a diminished secretion, corresponding to a rise of blood tension, then an increased secretion, corresponding to a fall of blood tension, and, finally, a second diminution of the secretion, due, apparently, to the altered quality of the blood.

XV. Strychnia causes at first a slow and afterwards a rapid secretion, corresponding to a rise and subsequent fall of blood tension.

In the above observations (XI.–XV.), it will be noticed that all those operations which are known to cause contraction of the intestinal vessels (indicated by a rise of blood tension) diminish the secretion of bile, while those which dilate the same vessels have the opposite effect. It is therefore probable that the chologogue action of cathartics may be partly dependent upon the changes produced in the intestinal circulation.

The author confirms the observation of Schmulewitsch (*Ludwig's Arbeiten*, 1868, p. 113) that an excised liver, through the vessels of which defibrinated blood is conducted, continues to secrete bile for some time after its removal from the body. If a one per cent. solution of common salt is used instead of defibrinated blood, no secretion takes place, showing that the fluid in question cannot be simply bile retained in the gall-ducts and pressed out mechanically by the injection into the bloodvessels. The latter view is, however, maintained by Pflüger,* who supports it by experiments similar to those of

* Pflüger's Archiv, iv. p. 54.

Röhrig, except that he used a three per cent. instead of a one per cent. solution of salt. How these results are to be reconciled is not clear.

Munk's experiments *(Pflüger's Archiv,* viii. p. 150) were performed on curarized rabbits, in the same way as Röhrig's. He finds that irritation of the spinal cord (either direct or indirect through sensitive nerves) causes, at first, an increased and afterwards a diminished secretion of bile, instead of simply a diminution, as observed by Röhrig. (See above, XIII.) He thus confirms former observations of Heidenhain, who attributed the primary increase of secretion to the contraction of the muscular walls of the gall-ducts pressing out the bile contained there, and the secondary diminution of secretion to the diminished flow of blood through the capillaries of the liver. Munk demonstrates that the splanchnic nerves are the channel through which both of these effects are produced, for irritation of these nerves causes both the primary increase and the secondary diminution of secretion, and, after section of these nerves, both direct and reflex irritation of the cord remain without effect.

Blood Globules.

Malassez. *De la Numeration des Globules rouges du Sang.* Paris: 1873.

Manassein. *Ueber die Dimensionen der rothen Blutkörperchen unter verschiedenen Einflüssen.* Berlin: 1872.

Malassez has invented a method by means of which the number of red globules in any specimen of blood may be very rapidly (in 10′) determined. The error of the method does not exceed 2 to 3 per cent. The blood to be examined is first diluted by adding 1 part of blood to 99 parts of a solution made by mixing 1 volume of a solution of gum arabic, having a specific gravity of 1020, with 3 volumes of a solution containing equal amounts of sodic sulphate and sodic chloride, and having, also, a specific gravity of 1020. Thus diluted, the blood is introduced into an "artificial capillary," made from a thermometer tube having an elliptical bore, by grinding away the sides parallel to the long axis of the bore, thus reducing the tube to a strip of glass with a flattened canal running through it. The capacity of this capillary tube is determined by calibration with mercury, i. e., by ascertaining the weight of a quantity of mercury which occupies a given length of the tube. This artificial capillary, filled with diluted blood, is examined under the microscope, and the number of globules present in a given length of the tube determined by counting. This process is facilitated by the use of an eye-piece, containing a glass plate with squares ruled on it, which, by means of the draw tube, can be so adjusted that each square shall correspond to a given fraction of a millimetre on the capillary. Knowing, then, the capacity of the capillary, and the amount of dilution of the blood, it is easy to calculate the number of globules in a cubic millimetre of the blood in question.

When the blood of different animals is examined by this method, it is found that, in general, the higher the position in the animal series, the more numerous are the blood globules. As the size of the globules follows approximately an inverse law, it may be said in a general way that the number of globules in the blood of a given animal is inversely proportional to their size. This relation, however, is by no means constant. For example, the globules of man are at the same time less numerous and smaller than those of the dromedary and lama; and birds,

though having larger and less numerous globules than mammals, gain more by the increased volume than they lose by the diminished number. The absolute number of globules is found to vary in mammals between 3,500,000 and 18,000,000 per cubic millimetre of blood. The blood of man has, on an average, about four million.

Malassez has also studied the "globular richness" of the blood in different parts of the circulatory system, and has pointed out the bearing of his results on the solution of various physiological questions. In the first place, he points out that an increased or diminished "globular richness" may be either real or apparent; *real*, when due to a formation or destruction of globules; *apparent*, when due to a diminution or increase in the amount of plasma. Arterial blood is nearly the same all over the body. Venous blood is, in general, richer in globules than arterial blood, but it differs greatly in different parts of the body. This greater globular richness is apparent rather than real, and is due to the diminution of the plasma from evaporation through the skin, from absorption by the lymphatics, and from its going to form part of various secretions. If the amount of blood flowing through an organ is increased, the venous blood becomes, in globular richness, more like the arterial, for less plasma exudes from the vessels in proportion to the amount of blood flowing through them, though the absolute amount thus exuding may be greater. For example, in the case of the submaxillary gland, irritation of the chorda tympani causes an increased flow of blood through the gland, an increased secretion of saliva, and a diminished globular richness of the venous blood. In other words, the venous blood becomes poorer in globules, i. e., richer in plasma, at the same time that the amount of fluid exuding from it is increased. This indicates, of course, that, under the influence of the irritation of the chorda tympani, the amount of blood flowing through the gland increases in a more rapid ratio than the amount of saliva secreted. The blood of the renal vein is 1·03 times richer in globules than that of the renal artery—a small difference, in view of the large amount of fluid excreted by the kidneys, but explicable when we consider the large size of the renal vessels and the immense amount of blood passing through them (938 kilo in twenty-four hours, according to Brown-Séquard).

During digestion, the blood of the mesenteric veins is poorer, but at other times richer in globules than that of the mesenteric arteries. This is, of course, accounted for by the amount of fluid absorbed from the intestine during digestion.

The blood of the splenic vein is from 1·11 to 1·21 times richer in globules than that of the splenic artery. This difference is greater than that which occurs in any of the other abdominal organs. It is probable, therefore, that the diminution of plasma is not the only cause of the difference, but that a real formation of globules takes place in the spleen. This view is strengthened by the fact that the blood of the splenic veins is found to be richest in globules during digestion, which is also the period of the greatest vascularity of the spleen, and this increased vascularity should, if the spleen were like other organs, diminish the venous globular richness.

The hepatic vein shows a diminished globular richness, which cannot be accounted for by any increase of the fluid constituents of the blood, and which indicates, therefore, a destruction of globules in the

liver. This is in accordance with the known solvent action of the biliary salts on the blood globules and with the supposed formation of the coloring matter of the bile from hæmoglobin, which implies a destruction of globules.

It should be mentioned that these results, as far as regards the splenic and hepatic veins, are not altogether in accordance with previous observations of a similar nature,* but, from the great delicacy of the method, and the care with which the experiments have been made, the author's conclusions seem to be entitled to great confidence.

The method of Malassez is likely to be of great use in pathological investigations. The author has already applied it to the study of erysipelas. He finds that, in the blood of the erysipelatous parts, the red globules are increased, and the white globules diminished in number. He finds, also, in the cellular tissue, quite a large quantity of serous fluid, containing a considerable number of white globules. He concludes, therefore, that the blood is only *apparently* richer in red globules, in consequence of fluids and white globules having passed through the vascular walls to accumulate in the cellular tissue.

Manassein has made numerous measurements of blood-globules in various animals and under various influences. He concludes that an increased temperature of the body causes a diminution in the size of the red globules, while a lowered animal temperature has the opposite effect. Hence, in fever, the globules are found to be diminished in size, while all the influences which tend to lower the animal heat (external application of cold, ingestion of alcohol, quinine or prussic acid) increase the size of the globules. The absorption of oxygen causes an increase in the size of the globules, while carbonic acid has the opposite effect.

Spontaneous Generation.

During the last few years, the old question of the origin of living organisms from non-living matter has been, under the names of archebiosis (Bastian) and abiogenesis (Huxley), brought forward and discussed with renewed energy. The great scientific importance of the problem seems to demand some reference to it in these pages, but, as the question can be regarded as physiological only in the widest sense of the word, its discussion, in this report, may perhaps be considered out of place. The reader is therefore referred to the scientific article of the *Atlantic Monthly* for December, 1873, for an excellent statement of the present condition of the controversy.

In connection with this report, it may be well to mention that the publication of the valuable "Annual Report of Henle and Meissner on the Progress of Anatomy and Physiology," which ceased with the year 1871, has been resumed, under the charge of Professors Hofmann and Schwalbe, assisted by numerous able investigators in various parts of Germany. The first volume of the new series has recently appeared, giving a *résumé* of the work done in 1872. It is in somewhat larger form than the volumes of the old series, and gives evidence that the report will be in the future even more valuable than in the past, as a work of reference for students of physiology.

* See Carpenter, Human Physiology, 7th Ed., p. 227.

Bibliographical Notices.

On the Origin and Metamorphoses of Insects. By Sir John Lubbock. Nature Series. London: Macmillan & Co.

The eleven thousand and more pages annually devoted to Entomology but seldom contain much of interest to those who are not themselves devoted to that study, and it is, therefore, peculiarly pleasant to meet this little volume—whose contents are already familiar to many readers of "*Nature*"—attempting, in a popular way, an explanation of the origin of insects. There is, probably, no group in the animal kingdom more puzzling to the evolutionist than the *Insecta*, and few are better fitted to speculate on its origin than Sir John Lubbock, prepared, as he is, by numerous researches on the anatomy and development of the arthropods. In the presentation of his views, however, here, as in his former works, a want of system, and even of clearness, in some cases, is observable, which often obscures or weakens his arguments.

The first chapter, by way of introduction, contains a brief description of the thirteen groups into which Westwood has distributed insects. The influence of external conditions on the form and structure of larvæ is next illustrated by such examples as the true caterpillars and the leaf-feeding *Hymenoptera*; the parasitic larvæ of *Hymenoptera* and *Diptera*; the wood-boring larvæ of different orders, &c. The peculiar case of the beetle *Sitaris*, parasitic on wild bees, whose larvæ emerges from the egg, an active carnivorous little hexapod, then becomes an apodal honey-eating grub, and, finally, a perfect beetle, is, of course, discussed at length. As the result of these considerations, Lubbock concludes that whenever the larva departs from the hexapod, *Campodea*-like type, it has been modified by the conditions under which it lives, and that, hence, metamorphoses are of two kinds—developmental and adaptive. A chapter on the nature of metamorphoses follows, and examples are given from the Acalephs, Echinoderms and Crustacea, besides insects; a chapter which, perhaps, might better have been omitted, for the light thrown upon the subject is dim, at best, while mere illustration was not wanting.

The main interest of the book is, of course, centered in its concluding chapters on the origin of metamorphoses and the origin of insects, and for both problems Lubbock finds a key in the study of *Campodea*, a genus allied to, and intermediate between, the Lepismas and Poduras. The *Campodeæ* have a mouth, in which the parts are soft, and neither distinctly suctorial nor mandibulate, and we can easily conceive that variations in either direction from this neutral condition were seized on by natural selection, until, in time, a structure exclusively fitted for sucking or biting was produced. And, again, we can fancy some of these ancient *Campodea*-like forms living under conditions rendering a capacity for biting valuable at one time of life, and a capacity for sucking valuable at another period, and, therefore, natural selection would act in opposite directions at different periods in the life of the same individual, and would, in time, produce an insect with a mandibulate larva and a haustellate imago, as in the *Lepidoptera*. Now we know that a change of skin, among the

Articulates, involves a period of quiescence more or less prolonged; and, in the last case, the change of one type of mouth and digestive organs to another, taking place necessarily at the time of shedding the skin, would produce a long period of inactivity, corresponding to the radical change undergone, and, hence, an immobile pupal stage would arise. That these suggestions are ingenious and plausible, will be admitted by the evolutionist; that they fully answer the whole intricate problem of insect origin, is not, of course, to be expected; but if the attention of zoölogists is called to this subject, we shall have much to thank Sir John Lubbock for.

As for the *Campodeæ*, Lubbock suggests that their ancestors are to be sought among the Rotifers resembling *Lindia*, a form in which the characteristic "wheels" of the group are wanting; and these, in turn, from the *Infusoria*.

In concluding, we commend this book to the attention of our readers, for, in spite of the faults, before alluded to, it is, certainly, suggestive and instructive. Its numerous outline illustrations, although simple, are, on the whole, very satisfactory, and, with the non-theoretical portion of the reading matter, will render the work of value as an entomological text-book. E. B.

BOOKS AND PAMPHLETS RECEIVED.

Lectures on Bright's Disease, with special reference to Pathology, Diagnosis and Treatment. By George Johnson, M.D., F.R.S. New York: G. P. Putnam's Sons. 1874. Pp. 152.

The Physician's Visiting List for 1874. Philadelphia: Lindsay & Blakiston.

Clinical Researches in Electro-Surgery. By A. Rockwell, A.M., M.D., and George M. Beard, A.M., M.D. New York: William Wood & Co. 1873. Pp. 72.

The Sphygmograph. Its Physiological and Pathological Indications. The Essay to which was awarded the Stevens Triennial Prize by the College of Physicians and Surgeons, New York, April, 1873. By Edgar Holden, A.M., M.D. Philadelphia: Lindsay & Blakiston. 1874. Pp. 163. (For sale by James Campbell.)

Dunglison's Medical Dictionary. Revised Edition. By Richard J. Dunglison, M.D. Philadelphia: Henry C. Lea. 1874. (From A. Williams & Co.)

Clinical Notes on the Electric Cautery in Uterine Surgery. By J. Byrne, M.D., M.R.C.S.E. New York: William Wood & Co.

The Stone Age, Past and Present. By E. B. Tylor. Boston: Estes & Lauriat. Pp. 50.

Half-Hour Recreations in Natural History. Part I. Insects of the Garden. By A. S. Packard, Jr. Boston: Estes & Lauriat. Pp. 32.

Massachusetts Institute of Technology. President's Report for the year ending Sept. 30, 1873. Pp. 89.

Proceedings of the Nebraska State Medical Society, at its fifth annual session. Omaha, Nebraska. 1873. Pp. 54.

Report on an Investigation of Sources of the Offensive Odors which are ascribed, in a petition by John M. Tyler and others before the State Board of Health, to the Hog-Slaughtering Establishment of John P. Squire & Co., of East Cambridge. By Prof. E. N. Horsford. 1873.

Boston Medical and Surgical Journal.

Boston: Thursday, January 22, 1874.

The recent protracted hearing before the State Board of Health on the charges against the hog-killing and packing establishment of J. P. Squire, at East Cambridge, although it may have wearied the patience of newspaper readers, has not lost its interest for the medical profession. In the vastness of the pecuniary interests involved, it bids fair to take a place among the *causes celèbres;* while its protracted length brings to mind such trials as those of Warren Hastings and the "Claimant."

At the very outset, the public could not but have been impressed by the strong array of legal and scientific talent summoned on the part of the defence, as contrasted with the modest pretensions of the complainants; reminding one, forcibly, of the Scriptural defiance by the gigantic Philistine of the stripling shepherd boy. As the case went on, the medical mind could not but be struck with the fact—however much the public at large may have failed to see it—that the trial gradually assumed the character of a judicial investigation, such as is properly conducted before a court of law, rather than a Board of Health. The vast pecuniary interests at stake were spread before the public from day to day by a willing press, and the most recondite and elaborate chemical investigations were adduced to confound the natural senses of man. A most persevering effort was also made to prove that the nauseous odors complained of came from some other source than that to which they had been traced—such as Miller's and Charles River flats, &c. As if, before such a tribunal, questions of money interest, or nice chemical analysis, could, by any possibility, be allowed to take precedence of the question of public health and comfort, or the positive evidence of sight, hearing and smell; and as if any amount of ingenious reasoning could make it appear that the killing of a million hogs a year, with the concomitant boiling and rendering, does not constitute a very obvious nuisance of the most abominable character, in the midst of such a crowded population as that of East Cambridge and Somerville.

In the case under consideration, the Board of Health are acting under a responsibility hardly ever equalled in the experience of such bodies. Fortunately, it is so admirably constituted, and its authority has been so judiciously used, that the public has given it a constantly increasing confidence and support. Moreover, it has unlimited power of action. By its decision, it can, at once, shut up any obnoxious

slaughtering and rendering establishment anywhere in the State; and its repeated action within the past two years has shown that it has the moral courage to act without flinching when the public good demands it.

It must not be lost sight of that a nuisance need not, necessarily, be a direct and immediate cause of death or flagrant sickness, to be intolerable and destructive of all comfort within the range of its influence. Without dwelling upon the great increase of infantile disease in the vicinity of the East Cambridge establishments during the summer season (as proved by competent medical witnesses), the suffering and annoyance caused to thousands of people within a radius of two miles by the nauseous odors given out by them at night during the hottest season of the year, constitute a grievance of the most serious character, and, without doubt, indirectly productive of much positive sickness. It is a fact not generally known, probably, that the most active operations at these great slaughter houses are carried on during the summer months, so that the tolerance of similar establishments at the West by populous neighborhoods cannot be adduced in their defence; for there the custom is the reverse, the winter being the season of principal activity. Furthermore, certain of the most obnoxious processes are carried on in this vicinity in the night, particularly after midnight, compelling the closing of thousands of windows, no matter what the temperature may be, to exclude the sleep-destroying stench. Then, again, the residents about the scene of slaughter are tormented all through the summer nights by the yells of the hogs in the sticking-pen. The unfortunate porker, no matter what may be his ponderosity, is swung up in the air by a rope around a single hind leg, so as to present his throat to the fatal knife in the speediest and least laborious manner. The hideous outcry goes on without a moment's cessation, and can be heard, we are credibly informed, a quarter of a mile from the scene of slaughter. If sleep by night is needed to repair the waste of the day, it is hardly possible to conceive of a combination of annoyances better calculated to banish it from the pillows of the unhappy people exposed to them.

The Board of Health has not yet published its decision in this important investigation. We wait for the verdict, fully assured that the clear sight of that impartial body will not be blinded by the dust of commercial interest, however golden, nor be-fogged by the mist of chemical special pleading, however ingenious; nor that other special sense, most immediately concerned in this investigation, be diverted from the track by the numerous side odors and stenches with which it has been attempted to obstruct the direct pursuit of the great cause of offence to its source. We cannot but believe that the decision will bring great relief to suffering thousands.

Action at Law for a Death from Chloroform.—A Madame Caron, some months since, was taken by her husband to a dentist at Lille to have a tooth drawn. Chloroform was administered in his presence, and his unfortunate wife died. The dentist was condemned, by the Criminal Tribunal at Lille, to a month's imprisonment and 500 francs fine for "homicide by imprudence."

On appeal, the imprisonment was struck out of the sentence. Thereupon, the husband, although he had completely authorized the use of the chloroform, brought a civil action for damages, demanding 20,000 francs in his own interest and that of his son, a minor. The tribunal, considering the fact of homicide by imprudence having been established by the judgment of the criminal court, condemned the defendant to pay 4000 francs damages, 1000 to go to the husband, and 3000 to be put out at interest for the son until he attained his majority.—*Union Médicale*, Dec. 11.

Physiology of Sleep.—The following is an abstract of a paper read in September last, by Dr. Hurd, of Newburyport, before the New Hampshire Medical Society:—

We come now to a subject of the greatest interest, inasmuch as the view entertained is quite a modern one, but which is established by inductive evidence on a firm basis of fact. I allude to the proximate cause of sleep. And, first of all, it would be a legitimate deduction from what has gone before, that the sleeping state would be one of less activity, and, therefore, of less vascularity than the waking one. Less of arterial blood and less oxygen enters the cerebral substance. Were it not possible for tired nature somehow to *put on the brakes*, the persistent in-rushing torrent of oxygenized blood would soon effect the disintegration of all the unstable nerve substance. Stop the arterial stream, and you stop thought. Stop it in part, and you may stop thought, but you do not stop nutrition. How is this process effected? There are, I opine, several factors in the change. First of all, the tired brain sends diminished energy to the heart and lungs, and there is a slowing of the circulation. Secondly, there is a diminished amount of cerebral energy directed to the spinal centres and the sympathetic ganglia, and, in consequence of this inhibitory influence of the brain being withdrawn, the functions of these lower centres are exalted. Now the ganglia of the sympathetic preside over nutrition and those vascular processes on which nutritive operations depend. Its vaso-motor nerves control the arterial system. In active hyperæmia—instance blushing—those nerves are inhibited by a predominating nervous influence, hence the arteries are full, the capillaries and veins engorged. On the other hand, when the sympathetic is irritated, arteries supplied by it are constricted and the territorial region of those arteries becomes anæmic. . . . . What then occasions this liberation of molecular motion by the sympathetic ganglia, causing the circular muscular arterial fibres to contract, and thus narrowing the calibre of the vessels? It is possible that it may be partly due to that spontaneous energy of the motor centres, which no one seems so well to have demonstrated as Prof. Bain, in his systematic works. If the initiative to action be considered as existing in the vaso-motor filaments, what is the stimulus to action? I was for some time in-

clined to think that such stimulus was carbonic acid, as it has been proved that this gas accumulates in the blood during the waking hours. On more mature deliberation, I am convinced that carbonic acid has no such special irritant effect on the sympathetic filaments. The experiments of Liston have proved that it has a positively sedative effect on the elements of the nervous tissues. It interrupts cerebral activity by arresting the chemical interchange between oxygen and the tissues, and so preventing transformation. In the state of normal wakeful activity there is a strong attraction between the elements of the cerebral cells and the oxygen of arterial blood, and the pabulum of the incoming arterial current. This attraction, or "suction" (Virchow), is sufficient to overcome the sympathetic, and distend the bloodvessels. By arresting this molecular metamorphosis, you produce insensibility, a lowering of vital activity, depression, paralysis. If *complete*, cerebrum and medulla are alike incapacitated; general vascular stasis results—the nerve centres are full of dark blood—the person is comatose; death is there if relief be not instantaneous. If *incomplete*, the spinal and sympathetic centres may still be functioning well, and, now that the inhibitory or restraining influence of the brain is withdrawn, their automatic functions may be performed with increased vigor. My view, then, is the first, above propounded. The sleep state is one that normally follows that fatigue which is the expression of waste unbalanced by repair.

There is diminution of cerebral molecular energy, owing to diminution of force-giving, intra-cellular material. All the cerebral functions are languidly performed. The heart and lungs participate with lessened genesis of force. The lingering blood current contains, relatively, an excess of carbonic acid, which adds to the depression by hindering waste. Just now (to speak metaphorically), the sympathetic feels a withdrawal of the restraint which, during the working hours, the cerebrum was exercising. *It is an instance of the rhythm of the functions.* Like a new actor in the drama, it steps upon the stage. By its spontaneous motor activity, it so controls the cerebral circulation that the tired brain has a season of rest.

Hairy Men.—*The British Medical Journal*, Sept. 27, 1873, contains the following article on this subject:—

The anthropological interest attaching to *homines hirsuti*, always very considerable, has much increased since the observations of Darwin. Two remarkable examples—Russians, father and son—have lately arrived in Berlin and have been the subject of a lecture by Professor Virchow, of which we find an abstract in the *Edinburgh Medical Journal*. They are peculiarly remarkable in being edentalous. They are not hairy men in the ordinary acceptation of the term, but more resemble some of the monkey-tribe (the Diana monkey, Cuxio, &c.); while their edentalous condition carries them yet lower in the animal scale. The eldest is a man, aged over fifty-five, Andrian by name, said to be the son of a Russian soldier from the district of Kostroma. He was born during the service of his reputed father, and has no resemblance to him, to his mother, or to a brother and sister whom he possesses. To escape the unkindness of his fellow-villagers, Andrian fled to the woods, where he lived in a cave and was much given to

drunkenness; even yet, he is said to live chiefly on *sauerkraut* and *schnapps*, but his mental condition, which is truly none of the sharpest, does not seem to have suffered, and he is, on the whole, of a kindly disposition and affectionate to his son and those about him. Andrian was married, and had two children, who died young; one of these was a girl resembling her father; but of the other, a boy, nothing can be ascertained. Fedor, the boy exhibited with him, is three years old, and comes from the same village; he is said to be Andrian's son, born in concubinage; and it is most probable that this is the case, as it would be singular were two such creatures to originate independently in one small village. The peculiarity of these individuals is, that they have an excessive growth of hair upon one particular part of the body, namely, the face and neck; on the body and lower extremities there is also a stronger growth of hair, and particularly on the back and arms of the child there are sundry patches of ·15 to ·24 inch in diameter, covered with soft yellowish white hair, ·12 to ·24 inch long. Andrian has on his body isolated patches strewn, but not thickly, with hair 1½ to 2 inches long. But all this is trifling and subordinate compared with the hair-growth on the face, to which attention is mainly directed. Andrian has only the left eye-tooth in the upper jaw; Virchow has not stated how many teeth are in his lower jaw, but from the context it is improbable that he has more than his son, viz., four incisors. The son has no teeth in the upper jaw, hardly any alveolar process, and the upper lip is very narrow, so that the upper jaw appears depressed; the father presents the same appearance.

It is somewhat singular that a similar family has long been known to exist at Ava, and was first described by Crawford in 1829, and since then by Beigel. Three generations of this family are now known to exist. The grandfather, Shwe-Maon, had a daughter, Maphoon, and she again a son; all of whom present precisely the same peculiarities as in the family of Andrian, not only as to the growth of hair, but also as to the teeth. The grandfather has in the upper jaw only four incisors, in the lower jaw four incisors and one eye-tooth, and these teeth did not appear till he was twenty years of age. Maphoon has only four incisors in each jaw; the eye-teeth and molars are wholly wanting; the first two incisors appeared during her second year. The peculiarity of the hairiness in these individuals is of the same type as in Andrian and his son, in whom every part of the face and neck, usually only covered with lanugo, is covered with long hair, the very eyelids being so covered, the eyelashes being normal, while flowing locks come out of both nostrils, and also out of the meatus auditorius externus. At first sight, the occurrence of two such families in two such distinct parts of the world seems to point them out as "missing links,"—as the unreformed descendants of an earlier race of man. And our thoughts are carried back to the Ainos or hairy Kuriles, who are believed to be the remains of the aborigines of Japan, and who now inhabit the northern parts of the island of Jesso, and the southern part of the island of Saghalien. At first these aborigines were stated to be as hairy as our wild men, but from more accurate information obtained by the Berlin Anthropological Society, through the German resident, Herr Von Brandt, accompanied by numerous photographs and Japanese pictures of these Ainos, and from an examination of a skull recently obtained through Privy

Councillor Von Pelican, Virchow is able to state with positiveness that, neither in respect of the formation of hair nor in regard to the teeth, have the Ainos any analogy with the Russian or Burmese hairy men. The Ainos are certainly hairier on the chest and extremities than the nations around them, but there is nothing peculiar in the distribution of the hair, and the males have hair only on the typical parts peculiar to man. There is not a shadow of a race-connection between the Ainos and the Russian hairy men, and only the most prurient imagination could connect the latter with the Burmese family. No doubt, careful breeding could raise a new race of men from this accidental variety, just as various new races of domestic animals, dogs, for instance, have been propagated from accidental varieties. Virchow, however, believes that the peculiarities belonging to the Russian as well as to the Burmese families depend upon peculiarities of innervation which spring from accidental congenital abnormalities in the trigeminus, within whose domain all these peculiarities present themselves, only to be ascertained by careful dissection.

A Case of Rheumatic Fever treated with a Cold Bath; Death occurring immediately on leaving the Bath. By Sydney Ringer, M.D.—These short notes are published, as this case will help to answer the following questions:—Can cold baths be administered in rheumatic fever without danger? and is it advisable, before employing this treatment, to wait for the onset of hyperpyrexia? or should we commence it when high fever, absence of joint-pain, suppression of perspiration, and delirium show that there is danger that hyperpyrexia may occur? As, hitherto, all cases of rheumatic hyperpyrexia have proved fatal unless treated by cold baths, it is obvious that this case in no way contra-indicates that treatment on the occurrence of this dangerous condition.

A young woman, aged 24, was admitted into University College Hospital with rheumatic fever. Her father died suddenly from some unknown cause. Four years before, the patient suffered from a severe attack of rheumatic fever. Her present illness began about a week before her admission into hospital. On her admission, she suffered from a sharp attack of rheumatic fever, her temperature rising daily to 103°. There was not, however, much joint-affection, and at first she perspired freely, but latterly her skin grew dry. She rapidly got worse: thus, during the nine days she was in hospital, her temperature rose daily till it reached 105°, and her respirations rose from 32 to 70; her pulse remained about 120 per minute, and throughout was strong. Latterly, she suffered from dyspnœa, and, consequently, was propped up in bed with pillows. She wandered a little at night, and on the day the bath was employed her intellect was a little obscured, and she passed her urine under her. At 7.42 of the ninth day of her admission, she was placed in a general bath of 92°, her temperature in the axilla being 105° Fahr. In seven minutes, and before the temperature of the bath was reduced, her rectal temperature was 105°.8; the temperature of the bath was then reduced. In eighteen minutes after the commencement of the bath, her rectal temperature was 105°4. After forty-four minutes, her temperature had fallen to 103°4, the temperature of the bath being 69°. Whilst in the bath, she took four

ounces of brandy. She was removed because her breathing grew rather shallow. After being put to bed, she merely gasped a few times for five minutes and died, notwithstanding the employment of artificial respiration, energetic friction to the surface of the body, and anal injections of brandy. At the *post-mortem* examination, we found a few patches of recent lymph on both lungs, but not an unnatural quantity of serosity in the pleuræ. The heart was universally adherent to the pericardium, the adhesions being tough; the blood in the heart and great vessels was very dark-colored, fluid and free from clots. The left ventricle and auricle were dilated—especially the auricle. On the tricuspid, mitral and aortic valves, numerous minute vegetations were seen at the usual places. The mitral, aortic and pulmonary valves were a good deal thickened. The mitral valves admitted three fingers nearly to the knuckles; the two segments were united for a short distance; they permitted some regurgitation when tested at the tap. The heart's substance looked healthy, and was of fair consistence. On the surface, at places, there was a thin line of paler and rather opaque tissue. The walls of the left ventricle, at the base, were half an inch thick, at the middle five eighths of an inch, and at the apex rather less than one fourth of an inch. The brain, liver, spleen, kidneys, stomach and intestines were healthy. During life, her urine contained a trace of albumen.—*London Practitioner.*

Poisoning by Local Contact of Iodide of Mercury.—Dr. A. W. Foot gives an interesting case in his "Select Clinical Reports," showing the effects that may be produced by the local contact of mercury. A herdsman, aged 23, was admitted into the hospital with loss of motion and sensation in the right hand and forearm. A little more than three weeks before admission, he had rubbed a quantity of red mercurial ointment, as cattle blister, into three head of cattle who were affected with pleuro-pneumonia. He had been in the habit of rubbing this ointment into cattle all winter, but, on this particular occasion, the usual precautions, with regard to covering and washing the hand, had been neglected. The paralytic symptoms were first noticed on the following morning.—*Dublin Journal of Medical Science.*

The Hospitals.

BOSTON CITY HOSPITAL.

The surgical operations last Friday, January 16th, were as follows:—

Dr. Thorndike had a case of Abscess of the Thigh, which presented some interesting features. The patient was a man, fifty years old. Three months ago, while he was walking behind a two-wheeled cart, the body of the cart suddenly tipped up, and its edge came forcibly against the man's right thigh. The next day, the thigh was very greatly swollen. By rest and the use of fomentations, this distention subsided, and the patient was discharged, with the limb of the normal size. Presently, however, as the result of over-exertion, the swelling returned, and the thigh assumed its present proportions. There was a uniform enlargement of the whole thigh on its outer side, extending from the anterior superior spinous process to the patella. At the middle of the thigh, the circumference was four inches larger than the corresponding part of the other limb. The swelling was fluctuating, and was limited throughout its whole circumference by a firm wall of lymph.

Dr. Thorndike said the most interesting question in the case was concerning the diagnosis, as between a diffused traumatic aneurism and a simple abscess. If the former were the lesion, it would appear that the vessel injured had, after bleeding for a time, become plugged by a clot, and the products of the effused blood had become absorbed at the time of the first convalescence; then, premature exercise of the part unsealed the vessel again, and a new effusion had taken place. On the other hand, the whole trouble might consist of an abscess, the result of a degeneration of the extravasated material.

In either case, the treatment was plain—to give exit to the contained matter, and, if a bleeding vessel was at the bottom of the cyst, to secure it.

The sac, on being opened, was found to contain about two quarts of thin pus, with some shreds of sloughing fascia. Counter-openings were made, and silk setons were passed to connect them.

Dr. Cheever Amputated three Toes, in the case of a man who, a week previously, had performed partial amputation of the parts with an axe.

Dr. Cheever presented a case of Suppurating Bubo, the result of injury, in a child five years old. When the case was first seen, a week ago, the question was a doubtful one between a hernia and a lymphatic inflammation. An examination, under ether, showed that the swelling was upon, and not above or below, Poupart's ligament, and time had fully removed the doubt and had developed a small abscess, which was now incised.

On Tuesday, January 13th, Dr. Cheever operated upon a Cyst of the Neck, the patient being a young woman. The cyst had existed several months. The tumor extended from the lobe of the ear, behind and below the angle of the jaw. Dr. Cheever designed to dissect it out, with as little injury to the branches of the facial nerve as possible. For this purpose, a careful dissection was made, and some portions of the *pes anserinus* drawn upwards by a retractor. It was, however, found that the cyst lay beneath the parotid gland, and dipped in deeply, behind the angle of the jaw, to the bottom of the submaxillary triangle. A very troublesome arterial hæmorrhage, from the bottom of the wound, followed immediately on severing the connections of the cyst. Some vessels were tied, and the bleeding was finally controlled by tamping the wound with a compress dipped in ferric alum, in which six small sponges were successively packed. The contents of the sac had a suspicious appearance of malignancy.

Correspondence.

On Scarlatina.

Down East, Dec. 1st, 1873.

Messrs. Editors,—"What's good for the scarly-teen-er?" That is one of the questions we country folks have to meet. "Why nothing, if I can get along without." "But aint yer 'fraid it'll turn inter scarlet fever?" That's another of the questions. Well, I don't know how it is with you city folks, but down here the fellows, who call themselves homœopaths, have in their ignorance given the idea to the ignorant about them, that "scarly-teen-er," as they call it, is a name for a mild form of scarlet fever. It was bad enough before, when some child would be sick, and have the canker rash and the throat distemper, and the scarlet fever, one after another, and all at once combined. But to have the "scarly-teen-er" stuck on in advance by Dr. Likecureslike is a little too much. Four diseases! Isn't it a wonder that any of them get well?

We've got that Dr. L. in a neighboring village, and he travels about with his medicine case, and, by the help of the sugar-coated morphine pills, does considerable execution. Why shouldn't he? He's got a degree. A friend of mine saw it in his office. He used to sweep out store and handle the pestle for an apothecary in a country town, in a neighboring State. He came across the circular of that Philadelphia University, sent fifty dollars to the Dean and Doctor of Medicine! I don't know why it is, but in some places Down

East, men who would despise the name of homœopath will meet such jackasses as this fellow. They haven't courage to say "no;" and they wonder I won't bow to the man when I meet him. But this is no answer to the question put to me—"What's good for the scarly-teen-er?"

In an old number of your JOURNAL—I haven't time to turn to it, but it must be twenty-five years old—I learned how to treat the disease. Dr. Ephraim Buck, of your city, I think it was, told one of your Societies that he always greased his patients, who had scarlet fever; that it reduced the temperature, and quieted the patients, so that they fell asleep. He took off the rind from a piece of pork fat, big enough to cover the whole inside of his hand, and with that he rubbed the patient all over from head to foot, as often as he grew restless. Generally, the patient got away without any medicine. Well, I thought I would try it. Pork suits me outside much better than it does inside. So it does other folks. It occurred to me that all the greasing does is to keep the skin from burning up, and it will be as well if any other oily matter is used. So I used, afterwards, what they call "sweet oil." It smells rather better than pork fat. It's astonishing how much the skin will take up, and how much more quiet the patient gets. It's just as good in measles and in typhoid fever, and in any febrile attack that I have seen. It quiets the patient.

After I began this, I read an article in your paper for November 13th, on Scarlatina. Now, Dr. Baker didn't live a thousand miles from my town, when his field of practice was in those three towns in Cumberland County. I cannot help thinking that he must have done an awful big business to have 247 cases of scarlatina in four months, "most of which were of a very *malignant* type." Over two new malignant cases a day, and only "five were fatal, or a fraction over two per cent.!" Why, that was a twelfth of all the children under fifteen years that lived in those three towns. I don't think we should agree in our description of *malignant* scarlatina, any more than we should in our treatment. Yours, RUSTICUS.

AN APPEAL.

53 WEST 33D ST., NEW YORK, Dec. 30, 1873.

MESSRS. EDITORS.—Will you have the kindness to insert the enclosed circular in your valuable JOURNAL, and forward to the Committee therein named the contributions that your readers may be pleased to make to the noble object set forth? Very respectfully yours,

NATHAN BOZEMAN, M.D.

To the Medical Profession at large.

In obedience to the resolution of the Convention of Physicians, lately assembled in this city, we undertake this address to your sympathy, with full assurance that its hallowed object will secure your cordial support.

But yesterday our community was as a house of mourning, and its wail of distress, arising from stricken hearts and desolate homes, smote the ear of the world with the horrors of our affliction. Those of our people who remained in the doomed city can alone appreciate the sad story of suffering seen and felt in our midst, when death thus held, for seven long weeks, its high carnival among us. Over the entire city death and silence brooded. Its deserted streets, alike both day and night, scarce echoed a sound save the mournful hearse-rattle as it hurried to the grave its load of dead, or the footfalls of those ministers of mercy who lighted up the hours of darkness with their visits of charity. Silently and continuously the pious labor of love was performed, and each rivalled the other in the patient discharge of a common humanity. When the shaft of death prostrated one, another, with true Corsican spirit, took his place, and the work of benevolence went fearlessly on, until, under the favor of Heaven, the disease was baffled and the reign of terror at an end. Each creed, sect, order and brotherhood had its heroes and its martyrs, and it is in commemoration of the deeds of both the living and the dead that our hearts should never suffer forgetfulness.

The faithful physician who survived the storm bears in his conscience its

plaudits of duty done; but our seven brothers, Williams, Freeman, Crone, Hatch, Kennon, Blount and Minor, fallen at their post, martyrs to the cause of humanity, aye, bright exemplars of professional honor and duty, sleep in their quiet graves, with more lasting glory than embalmed warriors in piles of storied marble. Our fallen brothers, if they could be consulted, would doubtless wish no fitter burial than quiet interment in leafy Elmwood, but professional pride demands the honor of their perpetual commemoration, and we ask in this behalf that suitable stones be raised and carved for them. Their fame, the story of their heroism, belongs to the medical world, and our brethren throughout the broad land are respectfully requested to contribute something to this laudable end. Your contributions, however small, will aggregate a success of the enterprise.

Remittances may be made to either member of the Committee.

RICHARD H. TAYLOR, M.D., 44 North Court St.
F. L. SIM, M.D., 115½ Beale St.
R. W. MITCHELL, M.D., 275 Main St.

Memphis, Tenn., Nov. 10, 1873.

EFFECT OF CHLOROFORM ON THE PUPIL.

BOSTON, Dec. 27, 1873.

MESSRS. EDITORS,—The very interesting communication of Dr. Blodgett on the effect of ether on the heart's action, in the case of a patient of the Infirmary, reminds me of a case of congenital cataract on which I operated, many years ago, at the Infirmary, which was at that time in Bowdoin Square. It was soon after the introduction of chloroform, which was then held to be equally safe with ether. From some idiosyncrasy in the infant, the pupils dilated but imperfectly under the application of atropine. As I was about to perform the usual anterior operation of division of the soft cataract, this was an embarrassing incident. To my great surprise and satisfaction, the instant the child came under the effect of the chloroform, the pupils fully dilated, and the operation was finished without the slightest difficulty.

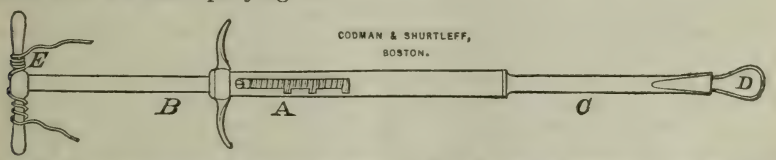
G. A. BETHUNE.

A NEW SPRING LIGATOR.

LYNN, Jan. 1st, 1874.

MESSRS. EDITORS,—This instrument, to which I desire to call the attention of the profession, is the invention of Dr. L. J. Crooker, of Augusta, Me. The original instrument, made by him, I saw while on vacation last summer, and was sufficiently interested in it to ask permission to take it to Boston and bring it to the notice of Codman & Shurtleff. It was at once appreciated by them, and they will engage in its manufacture, under the name of Crooker's spring ligator.

The instrument is designed for the removal of anything for which gradual is preferred to rapid removal, and its *modus operandi* will be readily understood from the accompanying cut.



A is a tube containing a spiral spring. B is a smaller tube, sliding within A. C is nearly solid, having a perforation only large enough for the passage of the wire ligature, D. By pushing in the tube, B, the spring is compressed, and is held so by engaging a screw attached to B, in one of the notches seen on the slot in A. The ligature can then be applied, tightened and fastened at E. The spring then being released, the action is obvious to any one.

This is presented as a much more convenient and inexpensive instrument than the spring ligator already before the profession, described by Dr. Greene, of Portland, in a former number of this JOURNAL, and it will be found equally efficient. The piece C can be made straight, or of any curve desired, and it would be well to have several pieces, of different form, with each instrument. By unscrewing the piece C, removing the spring and shutting B within A, we have three pieces that can easily be carried in the pocket or be put in a small case.

J. O. WEBSTER, M.D.

SICKNESS RATES.

BOSTON, Jan. 9, 1874.

MESSRS. EDITORS,—The communication of Dr. Derby, in your yesterday's issue, leads me to ask for a little space in your JOURNAL, to invite the attention of readers, and especially of Dr. Derby himself, to a proposal which appeared in a recent number of the *Lancet*, by a retired army surgeon, for obtaining a knowledge of the sickness-rates of the pupils attending the public schools.

His plan is, in substance, to have a regular weekly or monthly report, made by teachers to the school board, of the number of registered scholars absent from school by reason of temporary sickness, and, by truant officers, of the number of children of school-going age who have diseases which prevent them from attending school at all. He proposes to have the name of the disease ascertained from the parents in each class of cases, and constitute a feature of the report.

The *Lancet*, in an editorial note, comments favorably upon the scheme; but thinks that, to secure the best results, there should be a medical officer whose duty it should be, when called upon, to visit homes for the purpose of correcting or confirming a doubtful diagnosis.

Would not some such method as this, carefully adjusted to our school system, be at once practicable and useful? It would be especially applicable to cities; and thus, in respect to the youthful part of the population, at least, would remove the difficulty recognized by Dr. Derby of obtaining reports of sickness-rates in the large communities.

Will Dr. Derby kindly give his opinion on this matter through your pages? Perhaps a definite plan, emanating from him, would receive the coöperation of school committees, and produce information of great value.

J. S. GREENE.

LOCAL ANÆSTHESIA OF THE LARYNX.

PHILADELPHIA, Jan. 5, 1874.

MESSRS. EDITORS,—I fear that an article in a late number (No. 26, Vol. Lxxxix. Dec. 25, 1873) of the Boston Medical and Surgical Journal, with the above title, will promulgate an erroneous impression of a very reprehensible practice, which has had fatal sequences in Vienna. It places the patient in unnecessary peril. A *safe* local anæsthetic for the larynx will be a great desideratum; and the man who discovers it will rank only second to Czermak in promoting the efficient treatment of laryngeal affections. It is a mistake, too, to believe that the intra-laryngeal use of cauterizing instruments, or even of knives, requires, in the majority of cases, a tedious course of drillings lasting from a few days to several weeks. Except in rare instances, such a course of tentative manipulations can only be required in the case of beginners or bunglers; neither of whom should undertake the local treatment of serious and dangerous laryngeal diseases until preliminary experience in cases of less moment has rendered their fingers steady, and familiarized them with the utilization of various physiological muscular motions which facilitate their manipulations. I am certain that Boston contains a number of men with sufficient manual skill to treat promptly and effectually any intra-laryngeal complaint requiring local interference, without an extensive course of these preliminary drillings, and without resort to a local anæsthetic.

I am, yours truly, J. SOLIS COHEN, M.D.

Medical Miscellany.

Dr. Wm. Warren Greene, of Portland, has resigned the chair of surgery at Long Island College Hospital. We are happy to hear that he has recovered from his severe illness and has resumed practice.

Dr. Henry W. Fuller has recently died in London, at the age of 53. He will be best remembered in medicine for his inquiry into the use of alkalies in rheumatism, and he was an ardent advocate for their employment in sufficiently large doses in this disease.

For the Chafing of Infants.—Take of powdered starch two parts, white oxide of zinc one part. Make a fine, well-mixed powder. Dust the abraded parts with the powder, after proper cleansing.—*Exchange.*

"The noisy and pretentious form of medical superstition which was introduced by Hahnemann is passing to decay through the customary intermediate stage of a dying delusion—the stage of fraud."—*British Medical Journal.*

Cholera in Hungary.—The *Lancet* states that the epidemic of cholera in Hungary, from its beginning in 1872 to its close in 1873, is said to have attacked not less than 433,000 persons, and of these killed upwards of 183,000.

Artificial Elongation of the Clitoris.—Among some of the negro tribes of Western Africa the strange fashion exists of artificially elongating the clitoris by means of small weights appended to it, and the organ is thus gradually increased in size until it becomes lengthened several inches. This result is considered ornamental.

Adulterated Milk.—A milkman was recently fined £15 in Dublin for selling as milk a mixture of 90 per cent. of water and 10 per cent. of milk; the magistrate explaining that he had not imposed the full penalty of £20, because he wished to leave a margin of £5 to meet the case of any enterprising trader who might carry adulteration to a yet further pitch.

The Island of Mauritius has of late years gained an unenviable notoriety for its insalubrity. A few years since, malarious fever and dysentery committed fearful ravages there. Recent accounts state that a severe epidemic of measles has appeared in the colony. At Port Louis, the death-rate during the month of November was 92 per 1000.

Formula for Intertrigo.—M. Legal recommends the use of subnitrate of bismuth in eruptions caused by scratching, induced in turn by the itching of intertrigo. Glycerine is employed as an excipient, because it does not become rancid, and the tincture of cochineal to give a color. ℞. Subnitrate of bismuth, glycerine, of each eight grammes; tincture of cochineal, twenty drops.

Remedy for Chronic Hoarseness.—In chronic hoarseness arising from thickening of the vocal cords and adjacent membrane, the ammoniated tincture of guiacum is often a very efficacious remedy. It may be appropriately mixed with equal parts of the syrup of senega, and a teaspoonful of the mixture given two or three times a day.—*American Practitioner.*

Tobacco-poisoning.—A fatal case of poisoning by tobacco is reported in the Naval Medical Report just issued. It occurred in the person of a boy of the *Implacable.* He had been frequently punished for chewing tobacco, and had often presented himself at the sick bay complaining of debility, giddiness and faintness, which were traced to the poisonous influence of tobacco. On two occasions, he had swallowed pieces of tobacco to prevent detection. On the night of his death, he went to his hammock, telling his messmates that he felt sick. About ten minutes afterwards, the occupant of the next

hammock to his heard him breathing stertorously, and immediately tried to awaken him. Finding he could not, he was conveyed to the sick bay, and at once seen by a medical officer, who found him moribund. The pupils were insensible to the influence of light; and the pulse, which was scarcely perceptible, in three minutes ceased to beat. On *post-mortem* examination of the body, two small pieces of tobacco were found in the stomach.—*British Medical Journal.*

NOTES AND QUERIES.

In the *Boston Business Directory* for this year, published by Sampson, Davenport & Co., among the names of physicians in Brighton, Charlestown and West Roxbury, I find several with —(Allo.)— against them. Several of these names are of men respected by the profession, and never suspected of any kind of quackery. What does the affix mean? Was it given to the publishers of the *Directory* by the persons named? ***

Messrs. Editors,—It doesn't add to the peace of mind of an humble follower of medical science to find that an urinometer, in which implicit faith and confidence had been placed for over six years, is utterly worthless. It is with much vexation of spirit that I recall the careful observations that have been made in this time, which I last week discovered were to no purpose, for, on casually dropping my urinometer into a glass of water, it sank far below the "W" mark, and, in fact, almost out of sight.

It was bought of a well-known instrument dealer in New York, and is like those ordinarily used hereabouts. Now I have one of Heller's, but, as I never saw one in my student days, it is new and strange to me, and I confess I don't know how to use it. Will you kindly enlighten me, for none of my books throws any light on this subject? P.

Messrs. Editors,—I have several times had occasion to prescribe phosphorus, and have written for Warner's pills, one fiftieth of a grain each. At least three apothecaries have given, instead of Warner's, (one fiftieth of a grain), Bullock & Crenshaw's, (one sixtieth of a grain). As there is a great difference between the pills manufactured by these parties, there need be no such mistake, and it could only have been intentional on the part of the apothecaries, who probably did not have Warner's.

Bullock & Crenshaw's pill is about three sixteenths of an inch in diameter, made up with a dark, brownish-colored bitter mass, with either no odor or taste of phosphorus, or with only a very faint taste of it. In some, which were carefully analyzed, no phosphorus was found. Warner's pill is over one quarter of an inch in diameter, is made up from a whitish mass, with a very decided, unmistakable odor of phosphorus; indeed, his pills containing one one-hundredth of a grain smell more strongly of the agent than those of one sixtieth of a grain manufactured by the other party. Apothecaries, please send our patients the medicine ordered, in justice to our patients and to us! Physicians, examine the medicines procured by your patients, and, if not correct, have the error corrected! Pills.

Erratum.—The residence of Dr. W. R. Dunham is in Westmoreland, N. H., not in Vermont, as stated in our issue of the 8th.

Mortality in Massachusetts.—*Deaths in sixteen Cities and Towns for the week ending January* 10, 1874.

Boston, 139—Worcester, 17—Lowell, 24—Milford, 4—Chelsea, 5—Cambridge, 20—Salem, 10—Lawrence, 13—Springfield, 12—Lynn, 11—Fitchburg, 2—Newburyport, 4—Somerville, 3—Fall River, 18—Haverhill, 5—Holyoke, 4. Total, 291.

Prevalent Diseases.—Consumption, 49—pneumonia, 42—scarlet fever, 24—typhoid fever, 15.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Jan. 17th, 133. Males, 73; females, 60. Accident, 4—apoplexy, 3—asthma, 1—inflammation of the bowels, 2—disease of the bowels, 1—bronchitis, 5—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 3—cancer, 3—cerebro-spinal meningitis, 2—consumption, 19—convulsions, 1—croup, 1—debility, 5—diarrhœa, 1—dropsy of the brain, 6—diphtheria, 1—scarlet fever, 10—typhoid fever, 2—disease of the heart, 12—hernia, 1—intemperance, 1—disease of the kidneys, 2—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 19—laryngitis, 1—marasmus, 6—measles, 1—old age, 1—paralysis, 3—premature birth, 3—pyæmia, 2—puerperal disease, 2—scrofula, 1—tabes mesenterica, 1—tumor, 1—whooping cough, 1.

Under 5 years of age, 49—between 5 and 20 years, 9—between 20 and 40 years, 29—between 40 and 60 years, 24—over 60 years, 22. Born in the United States, 92—Ireland, 29—other places, 12.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XC.] THURSDAY, JANUARY 29, 1874. [NO. 5.

Original Communications.

CASES OF UTERINE FIBROIDS TREATED BY ELECTROLYSIS.

By GILMAN KIMBALL, M.D., Lowell.

OF the very large number of abdominal tumors that have come under my observation during the past twenty years, it is safe to say that, at least, seventy-five or eighty per cent. of them have been clearly diagnosticated as fibroid growths connected with the uterus.

In most instances, the subjects of these tumors have sought my advice under the impression that they were suffering from ovarian disease, and that relief was to be obtained only by some surgical operation. Instead, however, of advising any form of treatment that necessarily implied a greater or less risk of life, it has been my usual habit to advise rather that the disease should be allowed to take its own natural course, assuring the patient, at the same time, that her malady was not in itself dangerous; that sometimes, even, it disappeared of its own accord; moreover, that its presence was, in a large proportion of cases, quite consistent with a long and even a tolerably comfortable life.

As regards the treatment of such cases by intra-uterine section, after the manner recommended and practised some years since by Dr. Atlee, of Philadelphia, I am persuaded the procedure is one that cannot be safely adopted, except in a very limited number of cases; such, for example, as where the fibroids are comparatively small and well projected into the uterine cavity. In such instances, this enucleating process may oftentimes be practised with safety and good result. In a majority of instances, however, these fibroid growths are found to be interstitial or sub-peritoneal; under such circumstances, the operation referred to can scarcely prove otherwise than fatal.

The more severe and dangerous operation of extirpating the entire uterus is now almost universally regarded, except in extremely rare instances, as not merely inexpedient, but absolutely unjustifiable. Such operations have generally been the result of erroneous diagnosis; and nineteen twentieths of them, I have every reason to believe, have proved fatal.

Koeberle, of Strasbourg, and Péan, of Paris, have been comparatively successful in this line of surgery, and yet the favorable record

of even these eminently skilful surgeons will hardly commend the deliberate extirpation of a fibroid uterus as an ordinarily justifiable procedure.

Of the nine cases of uterine extirpation in my own practice, three only have been followed by recovery. Of these three, two were cases where the operation was performed with a clear recognition of the disease; the third operation was consequent upon an error of diagnosis. Of the six fatal cases, one was wrongly diagnosticated; the remaining five occurred in connection with ovariotomy, where the diseased ovary and uterus were found inseparably connected.

Setting aside, then, as inexpedient, and even unjustifiable, the several plans of treatment above referred to, to wit, intra-uterine section and the still more formidable operation of removal of the entire uterus, a still further question remains to be answered. Is there any other form of treatment, local or constitutional, that may be relied on as possessing any remedial efficiency either for arresting the growth or promoting the disappearance of uterine fibroids?

Answering for myself, after a pretty ample experience of a score or more of years, I am bound to say that I can call to mind but a single instance where any plan of purely medical treatment, constitutional or local, has been followed by any obviously favorable result. In one instance, the long-continued use of the iodide of potassium injected into the uterine cavity was followed by a gradual diminution, and final disappearance of a very large fibroid tumor of the uterus. The same remedy, since tried repeatedly, in a similar manner, and under apparently similar circumstances, has, in every instance, entirely failed.

Not content that a disease of so frequent occurrence and of so grave a character should be regarded as absolutely and forever beyond the reach of remedial treatment, and thus be allowed to take its place among the opprobia of the profession, I resolved to make trial of another remedy which, though, at present, of comparatively limited application, is likely, I believe, to prove itself, sooner or later, a therapeutic agent of great value. I allude to electrolysis. For the practical carrying out of this mode of treatment, I am largely indebted to my friend, Dr. Ephraim Cutter, of Woburn.

Diagnosis.—Ordinarily, the characteristics of uterine fibroids are sufficiently marked to allow of little difficulty in determining their true nature. It cannot be denied, however, that cases are now and then met with where even the most skilful and adroit diagnostician may become greatly embarrassed, and even led seriously to doubt whether the disease he is dealing with belongs to the uterus or to some other organ. In this connection, I can, perhaps, do no better than to quote from Prof. Koeberle, of Strasbourg: "The diagnosis of fibrous tumors of the uterus, interstitial and sub-peritoneal especially, oftentimes presents great difficulties, and has given occasion to numerous mistakes. They are particularly liable to be confound-

ed with ovarian tumors. It is in connection with such an error, no doubt, that most of the operations of uterine extirpation have been undertaken.

"Reciprocally, ovarian tumors have sometimes been taken for uterine fibroids, and these latter, again, for normal or extra-uterine pregnancy, dermoid or hydatid cysts, retro-uterine hæmatocele, cancerous tumors, &c. Differential diagnosis, in sharply defined cases, is simple and easy; but, in cases less marked, it is oftentimes extremely difficult, on account of symptoms common to this as well as to other forms of disease."

Without pretending to establish minutely the differential diagnosis of the various forms of disease that are liable to be confounded with uterine fibroids, Prof. Koeberle further remarks that "mistakes may generally be avoided by making a careful estimate of all the elements of diagnosis—the age of the patient, the progress of the disease, the circumstances connected with its first appearance—the form of the tumor, its consistence, the form of the neck of the womb, and the condition of menstruation; also the signs furnished by symptoms, local and subjective, particularly the touch, auscultation, percussion, shock, ballottement, exploration by trocar, uterine sound, &c. It is well not to lose sight of the fact that the different affections above mentioned are liable to complicate each other; that there may exist, simultaneously, both ovarian cyst and uterine fibroids; that the condition of pregnancy is quite possible in either condition; indeed, that it is sometimes absolutely impossible to establish with positive certainty the diagnostic difference between a compact or multilocular tumor of the ovary and a fibroid disease of the uterus.

"The softness and sense of fluctuation, which certain fibrous tumors present, tend, especially, to lead one into a mistake. When their growth has been slow, they are usually of firm consistency, sometimes quite hard. At other times, they are very unequal in this respect, and present several points where fluctuation is more or less evident. This condition is observed particularly where the tumor is soft and flaccid, a state of things which occurs, ordinarily, when the disease has taken on a rapid increase, and attains a large volume. Secondly, when it is very vascular. Thirdly, when it contains liquid collections, formed by mucous cysts, by serous infiltrations, or by deposits of blood or pus."

In the application of electrolysis to the treatment of fibroids of the uterus, I have never thought it essential to know with certainty what particular portion of the organ the disease occupied. My chief concern has been, rather, to be well assured as to the actual *nature* of the disease; also that the fibrous growth was so situated that it could be readily and safely penetrated by the electrodes.

Generally, I have found it most convenient to attack the disease through the abdominal walls. In some instances, however, where

the fibroid growth had projected itself downward so as to involve a portion, or, as it sometimes does, the whole of the neck of the uterus, I have made the attack through the vagina, thrusting one electrode into the tumor in that direction, and the other into the upper part through the abdominal parietes.

As yet, I have seen no ill effects, local or constitutional, following this operation. For some hours after, the patient suffers considerable pain through the pelvic region, also some feverish excitement, as denoted by a quickened pulse, thirst, and increased sensibility in the direction of the tumor. These symptoms, however, are not lasting, and in a day or two the patient declares herself entirely free from suffering of every kind.

The apparatus I have thus far employed was furnished by Dr. Cutter. Its construction is, in some respects, peculiar; but in its use I have found it admirably adapted to the purpose for which it was intended. The trial of it in several of my first cases was chiefly under Dr. Cutter's direction. It consisted of a battery of zinc and carbon plates of about thirteen and a half square feet of surface —simple, yet very effective. The plates were strung on rods of hard rubber, and separated from each other by washers of the same material, the whole tightened by nuts; a handle of hard rubber sprung from the top. The cell was made of sheet lead, covered by a rattan basket. The exciting fluid consisted of a saturated solution of bichromate of potassa, acidulated with sulphuric acid. The conductors were of copper. The electrodes will be described further on.

It seems proper to remark in this connection that a battery of such power as the one just described should be operated with great care, and only by one fully comprehending its proper working.

In regard to the *modus operandi* of electrolysis in bringing about the diminution in size, or the absolute disappearance, of a fibroid growth, I have, as yet, no satisfactory answer to give. It is well understood that these growths are composed of a very loose and feebly organized tissue, and possess but a low degree of vitality; consequently, they tolerate local interference badly. This truth I have seen illustrated in two well-marked cases, where the surgeon, after having begun an operation for the removal of an ovarian cyst, very soon found himself attempting to dislodge a large, fibroid uterus. The operations were not completed in either case, and the patients recovered. Immediately following the recovery, however, the fibroid growths began sensibly to diminish in size, and ultimately they disappeared altogether. So, as regards the disease in question, may not the shock from a powerful galvanic battery, communicated directly to the loose and imperfectly organized tissue of a fibroid, so far interrupt, or interfere with, its nutrition as not only to arrest further development, but eventually to effect its removal altogether?

Case I.—Having procured, from Dr. D. F. Lincoln, a set of elec-

trolysis needles, prepared under his direction, I selected two of the longest, six inches in length, and about one sixteenth of an inch in diameter, cylindrical, tipped with platinum, and tapered to a point like a common sewing needle. The battery was furnished by Dr. Cutter, and with special reference to the purpose in view. Thus provided with what seemed to be, in all respects, a complete apparatus, I proceeded to make my first trial of it in the case of Mrs. T., of Springfield, Mass. It is proper, first, to state that I had been previously sent for to see this case, in the expectation that I should find an ovarian tumor. I found, instead, however, a large, fibroid tumor of the uterus, of several years' growth, very hard, irregular, filling the pelvic cavity, and rising up into the abdomen to an extent indicating a seven months' pregnancy. Every symptom, local and general, declared, beyond all doubt, the true nature of the disease. There had been frequent hæmorrhages, and, consequently, marked anæmia, and great prostration. The tumor had been rapidly increasing, and the suffering from distention had now become almost unbearable.

Being informed of the true nature of her disease, and that it was not of a character that, in my judgment, properly admitted of any such operation as she had anticipated, the patient was quite ready, and even anxious, to submit to any other form of treatment I might suggest. The plan of electrolysis was then fully explained, and in pursuance of arrangements then made, she soon after came to Lowell, and submitted to the first trial of the battery, the 26th of December, 1871.

No anæsthetic was used. The electrodes were plunged into the most prominent part of the tumor, passing through the abdominal walls on either side of the median line, about six inches apart, and in a downward and inward direction. They entered the tumor with great difficulty, and became so twisted and bent in the effort that the fibrous structure was penetrated not more than three-fourths of an inch.

In this respect, the operation was not at all satisfactory, inasmuch as it was intended that the electrodes should penetrate the tumor to the depth of at least three or four inches. Connections were made between the battery and electrodes, and the unbroken galvanic current maintained continuously for seven minutes. During this time, the pulse changed materially, as regards frequency. At first, it was not disturbed; very soon, it rose to 120, and was not so full as natural. The face became pale and somewhat pinched; a cold sweat covered the forehead; hands and feet, forearms and legs were pale and cold. The patient, all the while, uttered expressions of much suffering. Finding the impression so very profound, we desisted from further continuance of it, lest serious harm might ensue. The connections were broken, and the electrodes withdrawn. The operation was followed by considerable pros-

tration, and a pretty sharp pain through the abdomen. The prostration was met by stimulants, and the pain by subcutaneous injections of morphia, and hot fomentations to the abdomen. The patient gradually rallied from the prostration, and the pain subsided in the course of twenty-four hours. A sense of soreness, through the region of the tumor, continued for several days.

Jan. 1st, 1872, the operation was repeated in the same manner, and with very similar results, as to prostration and local suffering. For the six weeks following this second and last operation, the patient remained under my daily observation. During this period, I noticed no special change as regards the tumor; certainly, no increase in size appeared, a fact of great significance, considering that, for weeks previous to submitting to the first application of galvanism, the growth was rapidly advancing and causing great suffering from distention.

Defective and unsatisfactory as were the experiments in this case, owing to the imperfect construction of the electrodes, the effect upon the general condition of the patient proved, on the whole, very gratifying. Within three weeks from the first trial of the battery, there began to be a manifest improvement in health. Besides the return of appetite and strength, there was a consciousness of an arrest of the growth of the tumor. The moral effect of this last named fact was to remove a depressed state of mind that had hitherto been one of the most important features of the case.

Being satisfied that electrolysis had not been fairly tested in the foregoing case, I determined that, before making further trial of it, I would provide myself with better and differently constructed electrodes. With this view, I applied again to my friend, Dr. Cutter, whose tact and ingenuity I was sure was quite equal to furnishing all that could be desired.

The first electrode he produced was made after the fashion of a common corkscrew. This looked promising enough, but proved, upon trial, to be perfectly worthless. The doctor then produced another instrument, made almost precisely in the form of a surgeon's grooved director, with sharp point and edges, and an ebony handle at the proximal end. Provided with this newly devised instrument, I expected to be able to penetrate the fibroid tissue to any depth I desired, however dense and unyielding it might be. Moreover, from its possessing so much larger surface, I should be likely to get a greatly increased electrolytic action. In both these respects, I have not been disappointed. I can justly recommend the instrument as decidedly superior to any other I have yet seen.

Case II.—Early last March, Mrs. T., of Hubbardston, a widow lady, 40 years of age, married nine years since, but without children, called upon me to get my opinion and advice in regard to a large tumor in the abdomen. On examination, I found the disease to be a uterine fibroid, very dense, somewhat irregular, almost completely

filling the pelvis and extending upward into the abdomen as far as the umbilicus. The neck of the uterus was also involved, and the disease in this direction had projected itself several inches into the vagina. The general health of the patient had become much impaired, and she was suffering greatly in many ways, but especially from constant dyspnœa, and inability to get any rest, except in a semi-recumbent position, or by sitting upright in a chair. There was more or less peritoneal effusion; also anasarca of the lower limbs. Although the case was unpromising, after explaining its difficulties, and the slight prospect of getting any relief from any form of medical or surgical treatment, I suggested that, *possibly*, some benefit might be gained from galvanism. The proposition was cheerfully accepted, and no time was lost in carrying it into effect.

The first experiment with the battery was made the 26th of March, ult., under the direction of Dr. Cutter. His newly constructed electrodes were then used for the first time. The plan of procedure was precisely the same as that described in the first case, except that, in the present instance, the electrodes were made to penetrate the tumor to the depth of four inches instead of less than a single inch, as before. The current was continued about five minutes. During this time, the local suffering was quite severe, and lasted several hours after the electrodes had been withdrawn. The pulse, meantime, fell from 100 to 60 per minute; the skin became cool, but there was no severe prostration, as in the former case. Considerable reaction followed, but it subsided entirely in the course of twenty-four hours.

The immediate effects of this operation were quite remarkable. During the first twelve hours, the urinary secretion was more than quadrupled in quantity; at first turbid, it soon became clear and light colored. In connection with this change, the dropsical condition began immediately to subside, and in less than a week it had disappeared altogether.

But the most striking effect of the operation was the almost instantaneous and perfect relief from dyspnœa. For the first time in many months, she was now permitted to lie down in bed, and enjoy rest and sleep equal to that of the healthiest period of her life.

As soon as the pain and soreness had fully subsided, the patient was subjected to a second trial of the battery. This time, the tumor was attacked in a different manner. One electrode was thrust into the disease through the abdominal walls, about four inches, and about two inches from where it entered at the previous operation; the other electrode was made to penetrate the tumor per vaginam. In this direction, it entered about three inches. The connections were then made, and the current continued about four minutes.

No specially marked effects followed this operation, save some pain in the direction of the tumor, somewhat severe at first but subsiding in the course of a few hours.

The third and last operation was done about two weeks after the second, but with no special difference as to results.

This patient was under my charge six weeks. During all this time, her general condition was greatly improved. The more special evidence of this fact was seen in the complete and continued relief from a most distressing dyspnœa, and at the same time in the ability to lie down and sleep comfortably in her bed. Her appetite and strength returned in a great degree; the peritoneal effusion and anasarca passed away; and the suffering from abdominal distention became scarcely noticeable. The tumor itself became sensibly diminished in size, at least two and a half inches, as determined by careful measurement with a tape passed round the body over the most prominent portion of the tumor.

Upon my departure for Europe, the 1st of May, the galvanic treatment was discontinued, and the patient returned to her home. Soon after, as I have since been informed, her improved condition, so recently giving promise of a permanent relief (possibly an ultimate cure), began gradually to give way to a return of all her previous bad symptoms. In defiance of medical treatment, her condition soon grew rapidly worse, till, finally, she was relieved by death, about the middle of July, some six weeks from the time I last saw her.

In calculating the merits of electrolysis as a remedial or curative agent, I am not disposed to make more of this case than it really deserves. I can only regret that the treatment which, during the period of six weeks, had produced such marked and satisfactory results, could not have been longer continued. There were complications in the case, and it is not quite certain whether they were incidental to, or independent of, the uterine disease. However this may be, it was, certainly, an important and interesting fact that they were completely relieved for a time, through the influence of galvanic action. As regards what might have been the result of a longer continued application of this same agency, it is, of course, a matter of mere conjecture. But, allowing the case to have been absolutely beyond the reach of cure by any known remedy, the power of galvanism in affording such relief from suffering as shown in this particular instance furnishes sufficient reason for regarding it as something better than a therapeutic agent of a merely fancied value.

Case III.—About the middle of last April, I was called to see Miss F., of Haverhill, a maiden lady, 34 years of age. I found her suffering from a large uterine fibroid of some two or three years' growth. It was hard, globular, movable. She was very feeble and anæmic from frequent and profuse hæmorrhages. The recent increase in the size of the tumor, together with various symptoms of local and constitutional suffering, suggested the necessity of some speedy and effectual relief.

Seeing no occasion for surgical treatment, I proposed the trial of

electrolysis. The proposition was accepted at once. A few days after, the 22d of April, galvanism was applied, Drs. Cutter and Chase assisting. Chloroform was given, and the electrodes were passed through the parietes of the abdomen on either side, penetrating the tumor about three inches, with ease. The current was continued three minutes, with an effect seemingly less profound than in the previous cases, where no anæsthetic was used. There was no expression of suffering of any kind on coming out from the effect of the chloroform. For the week following, this case presented no new or specially marked symptoms. Evidently, no harm had been done.

On account of my absence, and Dr. Cutter being in a distant part of the country, this patient was not approached again for treatment till the latter part of June. During this time, however, she seems to have made favorable progress; her health, generally, was improved, and the tumor had manifestly diminished somewhat in size.

Assisted by Drs. Cogswell, of Bradford, and Nichols, of Haverhill, Dr. Cutter made the second application of galvanism, the 22d of June. Electrodes were introduced as on the previous occasion, and the current was continued five minutes. The pulse was somewhat quickened; the hands, arms and legs rather cool; but slight prostration followed. Next day, the patient was very comfortable, and made no complaint of suffering of any kind.

August 22d.—Galvanism was again repeated by Dr. Cutter, assisted by Drs. Chase and Nichols. The process was in all respects the same as before. General improvement had gone steadily on up to this time. The tumor also had gradually diminished.

Such was the state of things on my arrival home from Europe, the 1st of September. About the first of October, the patient called on me at Lowell, in order that I might the better judge of her actual condition by personal inquiry and examination. The result of the interview was most gratifying. It appeared that, from the day of the first experiment with the battery up to the present time, there had been a regular improvement in every particular, but more especially in regard to the local malady. The tumor which, only six months before, I had seen occupying a large portion of the pelvic cavity, and extending quite up to the umbilicus, and not less than eight or nine inches in diameter, had now so far disappeared that what remained of it could scarcely be felt. Its final disappearance altogether can now hardly be questioned, and with this event, it is reasonable to calculate, recovery will ultimately be complete in all respects. In this instance, electrolysis has certainly achieved a complete triumph. The means used and the results that followed are too closely related to admit of the question of mere coincidence.

Whatever may come of a further trial of galvanism, whether as applied to uterine fibroids or to any other form of disease, enough has been accomplished in this single instance to show that, as a thera-

peutic agent, it deserves, and must eventually receive, from the profession a far greater consideration and confidence than has yet been bestowed upon it.

Case IV.—M. C., of Newburyport, a domestic, 24 years of age, never married, a naturally stout, healthy person, first noticed that she was growing unusually large about four years since. She came to consult me, about the middle of October last. Her case was readily diagnosticated as a fibroid uterine tumor, occupying a great portion of the pelvic cavity and extending into the abdomen about three inches above the umbilicus. Her general health was not much disturbed; she was able to go through her daily duties as a domestic without much difficulty. Her chief trouble was a constant pressure against the bladder, causing frequent and painful micturition.

In view of what I had so recently seen accomplished by electrolysis, I proposed a trial of it in this case. In the course of a few days, she came to Lowell for treatment, and, with the assistance of Dr. Cutter, galvanism was applied for the first time, Sept. 22d, Drs. Graves and Fuller being also present.

The electrodes were thrust into the tumor, at two points six inches apart, to the depth of four inches, on either side, as in previous cases, and the galvanic current maintained five minutes. At the commencement of the operation, the pulse was 86; at the close, it had fallen to 54, the patient meantime being under the influence of chloroform. Returning to consciousness, she complained of severe pain through the abdomen. It continued, more or less severe, for several hours, but left her almost entirely in the course of the following day. For nearly a week, pressure upon the tumor gave pain.

The operation was repeated, in the same manner, three times in the course of as many weeks. She then returned to Newburyport, remarking, as she was adjusting her dress, that she "was sure her tumor was smaller, because her clothes seemed so much looser about her."

Upon a return of her menstrual period—which was within a week after leaving my charge—she noticed the discharge was unusually abundant. It continued so long and so profuse that her physician, Dr. Howe, was called in. Under his treatment, the hæmorrhage gradually abated, and, in the course of three weeks, ceased altogether. A few days later, she returned to Lowell, for further trial of electrolysis.

During her absence, there was but slight change in the size of the tumor, especially the upper, or abdominal, portion of it; that it had diminished somewhat in the pelvic direction, seemed evident from the fact that, ever since the completion of the first series of operations, she had been perfectly relieved as to the pressure on the bladder and the almost constant desire for micturition, which had previously been so annoying.

The fifth application of galvanism was made the 20th of Novem-

ber; a day or two afterward, she menstruated naturally, and, on the 27th, a week from the previous operation, galvanism was again repeated. After one more operation, I shall advise a suspension of treatment for several weeks, to be resumed or not, according as circumstances may suggest.

Several cases, in addition to the above, are now under treatment, but, as yet, it is too early to form any just conclusion as to results. In proper time, however, after more extended experience, I hope to be able to furnish such a record as may fully and satisfactorily decide the question whether, in dealing with uterine fibroids, we really have in electrolysis a therapeutic agent of positive and unquestionable value or not.

ANEURISM OF THE EXTERNAL PLANTAR ARTERY.

By J. H. Johnson, M.D., Providence, R. I.

W. A. S., aged seven years, residing in this city, came under my treatment October 23d, 1873, for aneurism of the external plantar artery. The foot had been cut, several weeks previously, by stepping upon broken glass, but the wound had healed, leaving an aneurism of the size of an English walnut, and rapidly increasing.

Knowing that ligature of either tibial artery has been of uncertain success, and dreading the shock of an operation upon the very delicate constitution of the child, I proposed to treat the case by compression. I applied a tourniquet, with a pad adapted for compressing the posterior tibial artery, thus checking the flow of blood through the sac. This was applied one hour daily for two weeks. A thin cork pad, covered with charpie saturated in Monsel's styptic, was kept bound upon the sac by strips of adhesive plaster. As the current was not fully controlled, though the size and pulsations of the sac were greatly lessened, a second pad was strapped over the anterior tibial artery, on the dorsum of the foot.

At the beginning of the treatment, small doses of veratrum viride were given to reduce the circulation, the bowels being kept regular by compound cathartic pills. After two weeks, the tourniquet was applied at longer intervals, and the case was discharged, cured, on Dec. 4th, the sac having become perfectly flat and entirely pulseless.

During the whole time, no chloroform was administered, and, excepting the use of a crutch for some days, the treatment interfered but little with the usual activity of the patient.

Similarity in Twins.—Dr. J. F. Bird writes that he has invariably found that when twins are contained in the same sac, and are sustained by the same placenta, they have always had a remarkable resemblance to each other; whilst those contained in different sacs, and sustained by different placentæ, are as unlike as children born of the same parents at different periods. His hypothesis is sustained, not only by repeated personal observation, but also by inquiries made of other observers.—*New York Medical Record*, Jan 15, 1874.

Progress in Medicine.

REPORT ON GENITO-URINARY DISEASES.

By T. B. Curtis, M.D.

Venereal Diseases.

Twenty years ago, Bassereau showed, by confrontation of givers and receivers of venereal contagion, that venereal sores of a local character, and constitutional disease were each, invariably, transmitted as such, whence he inferred that syphilis, as then known, really comprehended two distinct, transmissible diseases, one being purely local (chancroid), the other constitutional (chancre). This broad and practical distinction is the basis of the doctrine of the so-called *duality* of syphilis, whereby is implied the dual character of the disease known under the name of syphilis before the time of Bassereau.

Ricord and his pupils further elaborated this doctrine, and showed that the local and the constitutional disease each depended on a distinct virus; the one, giving rise by inoculation upon any subject to a venereal sore (chancroid), developed without incubation, presenting a non-indurated base, capable of repeated auto-inoculation, and always local in character; the other producing, by inoculation upon a non-infected subject, a venereal sore (chancre) with indurated base and characteristic enlargement and induration of the neighboring ganglia, neither auto-inoculable nor capable of recurrence, and followed by the well-known symptoms of constitutional syphilis.

Ten years ago, these tenets were very widely accepted in all essential particulars. The unitists, as those authors were called who maintained that the chancroid and the syphilitic chancre were essentially parts of one and the same disease, succeeded in showing that certain venereal sores were at once auto-inoculable, with reproduction of chancroids, and followed by constitutional syphilis; but these phenomena were readily explained by the supposition of a "mixed chancre" resulting from a double inoculation taking effect upon the same spot, and this double contagion was shown to be a reality by Rollet and others.

The doctrine of dualism thus resisted all assailants, but new data have lately been brought forward, which, scientifically, imperil its foundations, however valuable its teachings may still be practically; a series of experiments made in England by H. Lee (1856), in Norway by Boeck, Bidenkap and Gjör, in Germany by Köbner and Pick, have shown that the secretion of true syphilitic sores, both primary and secondary, may by irritation be rendered capable of repeated auto-inoculation and transmission, the result thereof being, apparently, the same as that produced by the inoculation of chancroidal matter; it was even shown that such artificial chancroids, originating in the auto-inoculation of matter from a syphilitic chancre, were transmissible to non-infected subjects in the form of local sores, without production of constitutional disease (Bidenkap).

Other experiments were soon instituted (Pick, Reder, Kraus) with non-venereal matter (the secretions of pemphigus, acne, scabies, lupus), and it was found that the inoculation of such matter, while inef-

fectual upon sound subjects, was occasionally followed, when practised upon syphilitic subjects, by the appearance of pustules which were capable of repeated auto-inoculation. It thus appears that the inoculation, upon syphilitic subjects, of matter, whether specific or non-specific, may produce auto-inoculable and transmissible local sores.

Such are the facts which must be recognized and dealt with by any one who wishes, to-day, to constitute an acceptable theory of syphilis. How can the doctrine of dualism be said to be affected by these discoveries? Dr. Bumstead (*American Journal of the Medical Sciences*, April, 1873) shows, by numerous quotations from leading authorities, that considerable differences of opinion exist as to the value and purport of these new data. He is himself of opinion that, practically, the doctrine of dualism stands as well as ever; venereal disease remains either local or constitutional, and transmissible as such, requiring, in one case, a merely local treatment, in the other, a specific medication. From a scientific point of view, however, the case is different; the absolute distinction of chancroid and syphilis as two separate and absolutely independent diseases cannot be maintained, as asserted till now by the founders of dualism. "A new field for investigation and experiment has been opened," says Dr. Bumstead, "which no one has yet fully explored, and which no one can pretend to understand."

In connection with the facts collected and commented on by Dr. Bumstead in his very able paper, of which the foregoing is an abstract, we call attention to an article by Dr. Vidal, of the St. Louis Hospital of Paris (*Annales de Derm. et de Syph.*, vol. iv. No. 5), which shows that the pus of ecthyma simplex, and of the ecthyma of typhoid fever, proved auto-inoculable in a third of the cases where inoculation was tried; three or four generations of artificial pustules, precisely similar to the spontaneous parent pustule, were thus obtained. It would, perhaps, have been interesting to know whether the subjects of these exceptional successful experiments were syphilitic or not, but Dr. Vidal's observations are silent on this point.

It may be remembered that R. Ceely (quoted by Simon in Holmes's Surgery, vol. i. p. 47) has twice succeeded in communicating, by inoculation, ordinary herpes of the lip; and that Piringer has been able to excite conjunctival inflammation, not only with gonorrhœal pus, but also with non-specific matter, such, among others, as the secretion from the urethra of a boy aged three and a half years. As Dr. Bumstead says, "the exploration of this field promises to throw light, not only upon syphilis, but upon other contagious diseases, and even to add to our knowledge of the nature of specific poisons in general; but the work is yet undone, and any conclusions now are premature."

Professor Boeck and Axel-Scheel (*British and Foreign Medico-Chirurgical Review*, July, 1873) have made experiments with chancroidal matter (which, being unitists, they call syphilitic virus) with a view to settling the following questions:—

1. How long does the syphilitic virus preserve its power of inoculation? Twelve experiments were made with virus kept in sealed glass tubes. Positive results followed till the sixth day after the extraction of the matter. Virus kept between glass slides generally lost its power in three days.

2. What influence do heat and cold exert on this poison? Frozen

virus was successfully inoculated; virus warmed in air up to 111° F. was effective, as also was virus warmed up to 122° F. in water; higher temperatures made the virus ineffective.

3. Is it inoculable after being dried into crusts? Crusts produced pustules after being kept six days, and, in two cases, after being kept twelve days. The same result was obtained with pus dried on a lancet; pus dried on linen and moistened with water, failed after being kept two days.

4. How far does it preserve its power when mixed with other substances? Matter diluted with one hundred parts of water gave a positive result, as also when mixed with thirty parts of olive oil. A mixture, in equal parts, of pus and of a solution of one third of carbonate of potassa was ineffective.

Leçons sur la Syphilis chez la Femme. Par A. Fournier. Paris. 1873. Pp. 1103.

This voluminous work is a most valuable clinical and practical treatise on syphilis, embodying all the information and experience obtained by the author during many years of study in the male and female venereal hospitals of Paris, and in a very large private practice. It contains not only a full *exposé* of all the known clinical features of syphilis, according to the tenets of the dualist school, which Dr. Fournier assumes to be thoroughly established, but a large mass of new material collected at the Lourcine Hospital, and relating particularly to the female sex, in which syphilis offers many traits hitherto unobserved in the male. The limited space at our command allows us only a mention of the more novel features of this treatise.

The author dwells at length on the chancre, its great diversity of situation in woman, and its great liability to escape observation, even by the bearer; he also describes the chancre of the os uteri, of which he has seen thirteen cases. The difficulty of correct observation in such cases as he relates, accounts for the supposed instances of constitutional syphilis unpreceded by any primary sore, or consequent on a coinciding or previous chancroid. He also calls attention to the great frequency, in women, of syphilides of the genital mucous membrane; syphilides of the os uteri are described, and are shown to be the source of contagion in some mysterious cases. Well-marked induration of secondary sores often occurs in women, making the diagnosis of chancre doubtful in many cases, and giving rise to supposed instances of recurrence of the primary lesion; Dr. Fournier thinks that induration is a very commonplace phenomenon, having but little semeiotic value. Articular pains, neuralgic or inflammatory, are very common in syphilitic women, as are also synovitis and dropsy of the tendinous sheaths, and their specific nature is clearly established. The muscular system is frequently affected, with production of myalgia, wry-neck, rigidity, marked muscular weakness, and tremor. Many of these secondary phenomena concur to make up what Fournier calls syphilitic pseudo-rheumatism. A peculiar feature of syphilis in women is its tendency, during the secondary stage, to produce functional disturbance of the nervous system; almost every variety of neurosis may be produced, under the influence of the syphilitic diathesis, which gives rise to a morbid condition of nervous susceptibility which the author calls secondary nervosism. Cephalæa, variously localized neuralgia, analgesia

and anæsthesia are frequently met with as disorders of the sensitive nervous system; paralysis of various motor nerves and hemiplegia are also sometimes observed; these symptoms are not attributable to any discoverable lesion, and disappear in a few weeks under the specific treatment. Fournier also describes cases of sensorial disturbance of sight and hearing; of insomnia, of diminution or perversion of the intellectual faculties, and of syphilitic hysteria and epilepsy. Besides these various neuroses, the author describes certain forms of vasomotor disturbance, consisting in local lowering of temperature, sensations of chilliness, general algidity, or sudden sensations of heat with local hyperæmia, and general perspiration, or local hyperhidrosis. Fournier's secondary nervosism and its protean forms are shown to be frequent, and their specific origin is established by their causal subordination to the syphilitic diathesis, as well as by their disappearance under specific treatment.

An important chapter is that devoted to the study of syphilitic fever. This phenomenon was observed in a third of the whole number of patients (1120) whose cases were reported; symptomatic fever, accompanying an eruption, was far less common than the essential form which occurs independently of any apparent cause, chiefly in cases of neglected syphilis; the febrile disturbance generally assumes an intermittent or remittent form, but it is sometimes continuous, and, not rarely, quite irregular. The temperature rises sometimes as high as 40° C., and may remain high for several days or weeks. The diagnosis between the various forms of syphilitic fever and true intermittent, typhoid, or subacute rheumatic fever is sometimes quite difficult.

Several forms of visceral functional disturbance are also described, as dyspnœa, cardiac palpitation, anorexia, or well-marked bulimy, polydipsia, dyspepsia, gastralgia, vomiting, and enteralgia; icterus is also not uncommon. The influence of syphilis on menstruation and gestation is shown, reference to the statistics of the hospital establishing that, out of 390 child-bearing patients, only 249 reached their full term.

The final chapter, devoted to the all-important question of treatment, contains an able discussion of the merits of the expectant method, as compared with the specific treatment. Dr. Fournier energetically defends the use of mercury, and maintains his preference for the green iodide for the majority of cases; inunction he reserves for cases where rapid and sure mercurial action is required. He recommends that the mercurial treatment be kept up during about two years, with occasional interruptions, every two months or so, of a few weeks' duration.

In a paper on the etiology of hereditary syphilis (*New York Medical Journal*, July, 1871, and July, 1872), Dr. F. R. Sturgis contributes a most careful and thorough investigation into the value of the evidence available for the purpose of settling the vexed question of the mode of the hereditary transmission of syphilis. The author does not believe that the offspring can be infected before birth, except by the intermediary of the previously diseased mother, her disease being derived in the ordinary way from the father's contagious accidents. In conclusion, Dr. Sturgis says:—"Although I do not say absolutely that the paternal transmission (i. e. by the semen) is *impossible*, I do not

hesitate to say that it is *very improbable*, and on these grounds: 1. Because the reported cases are wanting in such details as to render them convincing. 2. Because this theory is entirely opposed to our present knowledge of the contagious properties of syphilis and its mode of propagation; and, 3. Because our knowledge of infantile syphilis has not kept pace with our progress in other branches of the disease."

URINARY SURGERY.

According to Dr. F. N. Otis *(New York Medical Journal*, March, 1873), a very slight degree of stricture, such as the largest divulsing instruments of Holt, Sir H. Thompson or Voillemier are incapable of dealing with, or the existence of one or several bands of stricture, sufficiently wide to admit an instrument corresponding to numbers 28 or 30 of the French scale, may suffice to keep up a chronic purulent urethral discharge. Hence the necessity for a new instrument which shall deal with these very wide strictures, or "bands of stricture," viz., the dilating urethrotome of the author. This instrument consists of two parallel bars, which are connected by several short transverse pivotal bars (as in the urethral dilator of Michéléna), and which can be widely separated by a screw situated in the handle, so that the calibre of the instrument can be carried from 23 to 34 (French scale). A sliding urethrotome traverses one of the bars, and its blade can be effectively brought to bear on any desired point, the mucous membrane being at the time distended by the expanded parallel bars. Dr. Otis has used this instrument in twenty-seven cases, cutting fifty-eight bands of stricture. Several cases are reported, among them one in which four distinct operations were successfully performed on as many bands of stricture, in a urethra which admitted a number 30 sound, and through which Voillemier's largest shaft (32) had in vain been rapidly and repeatedly driven. Dr. Otis says that no consecutive dilatation with sounds is necessary after his treatment. He asserts, moreover, that mere diminution of suppleness of the urethral wall, without interference with the normal calibre, suffices to keep up gleet; that the complete division of the cicatricial or stricture tissue, may be followed by its entire absorption, without the usual consecutive long-continued use of sounds. He claims in six cases to have absolutely demonstrated the entire absorption of the stricture, thus preventing any liability to relapse.

If these views are admitted, it becomes necessary to pursue gradual dilatation much further than is generally deemed necessary; and the hitherto approved means of treatment (Maisonneuve's urethrotomy; Holt's or Voillemier's divulsion) must, in many cases, only serve as a means of treatment preparatory to the repeated use of the dilating urethrotome, which may have to be brought into play as often as a 28 or 30 bulbous sound fails to go through the urethra. It is needless to observe how protracted and how trying would be the repeated interference thus rendered necessary.

Diseases of the Urinary Organs. By J. W. S. GOULEY, M.D. New York: 1873. Pp. 368.

This work is based upon lectures delivered by the author, on Stricture of the Urethra, Diseases of the Prostate, and Stone in the Bladder. A noticeable feature is the extension given to the use of tunnelled in-

struments, for cases where the passage through the urethra is rendered difficult by false passages or eccentric stricture. This method, which is an ingenious modification of the French "*cathetérisme sur conducteur*," was adopted by Dr. Gouley in 1864. It is applicable to the following instruments: Small catheters for eccentric or otherwise difficult stricture; sounds for dilatation of stricture complicated with false passage; Sir H. Thompson's instrument for over-distending stricture, which, Dr. Gouley says, is practically a divulsor; urethrotomes, Charrière's or Maissonneuve's modified; and, finally, an ingenious grooved and tunnelled catheter-staff for external perineal urethrotomy. The following are the essential features of the tunnelled instrument, and its mode of introduction: The surgeon first passes through the stricture and into the bladder a slender, probe-pointed whalebone bougie, about twenty-four inches long, of which the extremity may be either straight or bent, the latter for dealing with eccentric stricture. The instrument which it is desired to pass is grooved on its convex aspect, and the groove, being bridged over at the vesical extremity, is thereby converted into a tunnel, an eighth of an inch long, of which the opening is situated at the tip of the instrument. The free end of the whalebone bougie is now slipped through the tunnel, and the instrument is made to run along the guide afforded by the bougie; the bladder being thus safely reached, the whalebone guide is withdrawn. The author describes a method for performing external perineal urethrotomy with a conductor; in his operation, a grooved and tunnelled staff, to be used with the whalebone guide, is substituted for Syme's grooved staff, the objection to this instrument being that one cannot always be absolutely sure that it has not entered a false passage instead of being engaged in the stricture. The *modus operandi* is as follows: the whalebone bougie having been passed through the stricture, the grooved and tunnelled staff is carried along the guide till its extremity brings up against the stricture; the external incision, which the author advises should be an inch or an inch and a half in length, is then made, and the end of the staff being felt, the finger-nail is inserted into the groove, as in lithotomy, and the urethra is opened, so as to expose the catheter. As suggested by Mr. Avery, a loop of silk is then passed through each edge of the incised urethra, close to the stricture, and held by the assistants on either side; the catheter being next slightly withdrawn, the strictured canal is thoroughly divided with a small pointed knife, the black whalebone bougie being a safe guide for this step of the operation. The catheter staff is then carried along the guide into the bladder, and removed after withdrawal of the urine. Dr. Gouley, like many other practitioners, at home and abroad, no longer ties in a catheter after external or internal urethrotomy. In chronic prostatitis, Dr. Gouley says he has found gradual over-distention of the prostatic urethra, with a two-bladed instrument capable of expansion at its vesical extremity, of great value in some cases. This treatment, with a similar instrument, has also been lately recommended by Tillaux (*Bulletin Générale de Thérapeutique*, Aug. 15, 1873), to be tried after failure of cauterization. The last chapter is devoted to Dolbeau's perineal lithotrity, which Dr. Gouley has performed in three successful cases, and which he recommends as preferable to median lithotomy with fragmentation of the stone; he proposes a new lithoclast, which, though smaller

than Dolbeau's, is quite as strong. Dr. Gouley does not question Dolbeau's assertions to the effect that in his operation the vesical orifice of the urethra is only dilated, without ever being ruptured; Gosselin (*Clinique Chirurgicale de l'Hôpital de la Charité*, vol. ii. p. 352) speaks of a case operated upon in his wards by Dolbeau, in which, the patient having died of erysipelas, the neck of the bladder was found to have been torn, instead of having been simply dilated. The liability of the neck of the bladder to be lacerated, and the great difficulty of fragmentation and extraction in an empty and contracted bladder, seem to us objections to perineal lithotrity, which can only be answered by further proof of the value of the operation.

De la Fièvre dans les Maladies des Voies Urinaires. Par A. Malherbe. Paris. 1873. Pp. 146.

This essay, on what is commonly called by the unsatisfactory name of urethral fever, is based upon a large number of observations, with thermographic tracings, showing the invasion and progress of febrile disturbance after lithotrity, internal urethrotomy, &c. The author is of opinion that the feverish symptoms are always connected with renal disease, either temporary or permanent, with functional disturbance of the kidneys, and retention, more or less complete, of the excrementitial constituents of the urine. The renal alteration, which is the cause of the feverish attack, is either simple hyperæmia or interstitial nephritis, the latter ending in suppuration or atrophy of the renal parenchyma. The symptoms are of two-fold origin, consisting of fever, attending the inflammatory process in the kidney, and of toxic phenomena due to retention of excrementitial materials. The chief means of treatment are sudorifics, alcoholic stimulus, and dry cupping in the loins; sulphate of quinine in urethral fever, whether administered by the mouth or hypodermically, falls far short of the reputation which it enjoys in this connection. Surgical interference is only advisable in cases where there is stagnation or retention of urine; then the predominant indication is to reëstablish a free outflow of the urine.

In a paper which was read before the Royal Medical and Chirurgical Society (*Lancet*, March 8, 1873, and *American Journal of the Medical Sciences*, July, 1873), Dr. W. H. Dickinson describes the lesions characteristic of what is called the "surgical kidney." The alterations thus designated, and the attendant symptoms, constitute the natural termination of stricture of the urethra, and are, moreover, the great source of danger to be apprehended from catheterism or lithotrity. In such cases, the renal parenchyma is turgid and friable, with small, scattered abscesses, or soft, yellow deposits antecedent to abscess; in the cones, white lines are observable, which are morbidly occupied, distended tubuli. The microscopic appearances show the existence of disseminated intertubular suppuration, the distribution of which is regulated by the course of the veins, which are dilated and filled with coagulated blood; the urine is full of bacteria and vibriones, whether as a cause or as an effect of its putrefied condition, the author does not venture to say. He thinks that the correlation of these pathological conditions shows that the renal alteration is due to regurgitation of urine charged with morbific products, which distends the straight ducts, and thence enters the neighboring veins. The condi-

tions which bring about this contamination of the urine appertain to obstructive disease, preventing free outflow (stricture, hypertrophy of the prostate, stone, &c.), and to chronic cystitis (due to primary retention or to vesical calculus, &c.). In cases so tending, instrumental interference (catheterism, lithotrity) seems to be the instigator of the morbid process called "urethral fever"; but as this acute disturbance may apparently arise spontaneously, independently of surgical interference, Dickinson proposes to call the febrile attack by the name of "uriseptic" fever, which new designation seems to us to supply, in a satisfactory way, a long-felt desideratum. The chief objects of treatment in such cases are, first, prevention; secondly, preservation or restoration of the normal acidity of the urine; in view of this result, the introduction of antiseptics into the bladder may prove beneficial.

Napier proposes (*Medical Times and Gazette*, Dec. 6, 1873) a new sound for the detection of calculus. "The calculus detector is precisely similar in form to the ordinary sound. It is composed of steel up to the commencement of the curve, where it is reduced in diameter, and a coating of pure lead is cast around the smaller part, of sufficient thickness to render the surface perfectly smooth and even along the entire length. The leaden extremity is then polished as highly as possible with a leather, and rendered keenly sensitive to the slightest contact with any rough or hard substance, of which it would be found to bear visible trace."

This addition to sounds may be valuable for cases where it is difficult to get satisfactory evidence of the presence of stone; it is known that great difficulty is sometimes experienced with the ordinary sound, when the calculus is very large, so as to completely fill the bladder. [See Practical Lithotomy and Lithotrity, by Sir H. Thompson, 1871, p. 116.]

Swallowing a Bell.—It has often been a mooted question as to what sized foreign body would be capable of passing through the alimentary canal, and be discharged *per rectum*. In the last *Indian Medical Gazette*, an interesting case bearing upon the question is reported by Mr. Higginson. He reports that a child of four years of age put a "ghungree" (a little brass bell such as is commonly attached to ankle ornaments) into her mouth and accidentally swallowed it; the child at once ran to her father and told him what had happened; as she felt as if the thing had stuck halfway, the father made her eat a piece of bread to force it into the stomach. Application was then made to Mr. H. for a purgative. He directed the parents not to give any medicine whatsoever, but to keep the child quiet, and give her a hearty meal of her ordinary food, in order that the foreign body might haply get surrounded by fæculent matter, and so pass through safely. Next day the child complained of pain in the belly, and soon had a motion, in which the "ghungree" was found imbedded.

The bell is three-quarters of an inch long, and an inch and a half in circumference round its middle; it tapers towards each end, to one of which is soldered a little ring, the other being cleft to admit of a small stone.—*The Medical Press and Circular*, Nov. 26, 1873.

Boston Medical and Surgical Journal.

Boston: Thursday, January 29, 1874.

The question of the present status of the army medical corps, with regard to rank and to the prospect of promotion, is one which directly concerns the whole medical profession. We heartily sympathize with the active efforts now in progress tending toward the repeal of legal provisions which, during the last five years, have borne unjustly on a deserving department of the public service. The facts of the case are briefly as follows.

To reduce the army to a degree that was thought to be required in time of peace, Congress, in 1869, passed an Act, which, among other provisions, practically forbade farther promotions and appointments in the medical staff. The same prohibition applied also to other staff departments, it is true, but it operated very unequally, and the medical corps was the one to suffer most. According to the law, the medical officer then holding a commission could not look forward to anything higher than a major's rank as the summit of his ambition in that direction; and this point of dignity could be reached only after about fifteen years. If the surgeon, gray in the service, retires at length, a veteran, he must be content with second-rate rank and emoluments; while, for the same term of service, not involving any greater exposures, abilities and responsibilities, the staff-officer of the Adjutant-General's, the Quartermaster's, the Engineers' department receives a retiring rank and pay one and often two grades higher.

The medical officers of the army, from the Surgeon General down, demur with reason against this inequality. They ask the repeal of such provisions of the law as bear unjustly on themselves, while their colleagues of the navy and of other coördinate staffs in the army are faring better without superior desert. They point with becoming pride to what has gained for them world-wide encomiums, in their bravery and efficiency and sacrifices in the public service, and they do not willingly take a secondary place in the esteem of the government they have served so well. They believe that the Government cannot repudiate its contract with them in its zeal for the economy of a peace establishment; there are veteran surgeons, and men in middle life, who entered the service long ago, believing that the position of a medical officer offered in its rank and dignity and pay, and in the prospective promotions, something approaching an equivalent of the honors and rewards of medical practice in civil life; and now, at a time of life when to leave the service and begin civil practice would be, to

most of them, a hazardous venture, they see their hopes of the future dwindling to the vision of a retirement with an inferior rank, and with an income hardly sufficient to maintain themselves or their families decently. Congressmen have, of late, been wont to look after their own financial legislation on somewhat different principles.

There is another view of the matter. The law forbids the filling of subordinate vacancies as well as prohibits promotions, and so the medical corps is a body without the stimulus of growth. The medical corps was never overstocked, even in time of war; since the close of the rebellion, it has been constantly below the minimum. Consequently, the efficiency of the service, which was compromised already by the limited numbers of the corps, forcing additional labor on a few men, is still farther impaired by a statute which practically forbids renewal and growth. The Government confesses its weakness in this direction by supplementing the service of a curtailed department by the hiring of contract surgeons. We need not discuss the relative merits of a commissioned and of a contract medical service, or the importance, on both economical and humane grounds, of giving the army the best medical attendance that can be obtained. The fact remains evident that there is both injustice and shortsightedness in this endeavor to practise economy.

We cannot conceive of any valid argument against the plea of the medical staff. It seems to us a matter which, on its intrinsic merits, comes home to the whole profession, and which should stimulate physicians, individually and by associated action, to lend their sympathy and coöperation. By nothing so well as by a general and decided expression on the part of the profession will the Government be induced to take action which, in conceding what the army medical staff modestly requests as its right, shall recognize not only the merits of a deserving staff-department, but the dignity of medical science.

And we are glad to observe that the medical corps is getting this aid. Our contemporaries are unanimous in favoring the claim, and the medical societies are moving with commendable alacrity on all sides. Let not our Boston and New England Societies be slow in aiding a cause so obviously fortified by right and justice.

Pregnancy and Delivery without Rupture of the Hymen.—This extraordinary case is reported by Prof. R. Beverly Cole, of San Francisco (*The Western Lancet*, Dec., 1873). Upon being called to the woman, on account of abdominal pains, he obtained the following history. Her age was 24, and although she had been married, her husband, a sea captain, had gone to sea upon the very day of the marriage, and had not since returned. Having been regular in her catamenia since, she thought it impossible for her to be pregnant. Upon exami-

nation, the hymen was found unruptured, presenting a thick, semi-cartilaginous margin, with an orifice barely sufficient to admit the passage of the finger. The os uteri, however, proved to be dilated, and the presenting head of a fœtus was readily made out. The patient was left for three hours, and when the professor returned the pains had begun to be severe and continuous, so that it seemed to him more important to support the perinæum, than to divide the cartilaginous hymen. The unfortunate result of this decision was, that the head of the child, advancing with great force and rapidity, was driven directly through the perinæum, between the sphincter ani and the posterior commissure of the vulva.

[It seems somewhat remarkable that no attempt was made to divide the hymen, when its existence was first discovered, and equally unaccountable is it, that a woman in this abnormal condition should be left by the attendant for a period of three hours, after labor had actually begun.]

Disease-destroying Tree.—The *Medical Times and Gazette*, Nov. 1, 1873, states that M. Gimbert, who has been long engaged in collecting evidence concerning the Australian tree *eucalyptus globulus*, the growth of which is surprisingly rapid, attaining, besides, gigantic dimensions, has addressed an interesting communication to the Academy of Sciences. This plant, it appears, possesses the wonderful power of destroying miasmatic influence in fever-stricken districts. It has the property of absorbing ten times its weight of water from the soil, of emitting antiseptic camphorous effluvia, and when sown in marshy ground of drying it up in a very short time. The English, who were the first to try it at the Cape, within two or three years, completely changed the climatic condition of the unhealthy parts of the colony. In the spring of 1867, about 13,000 of the eucalyptus were planted at Pardock, in Algeria, on a farm situated on the banks of the Hamyze, which was noted for its extremely pestilential air. In July, of the same year—the time when the fever season used to set in—not a single case occurred; yet the trees were not more than nine feet high. Since then, complete immunity from fever has been maintained. Similar results have followed the planting of the tree in the neighborhood of Constantine, where, in the course of five years, tracts of marshy ground have been completely dried up. In the Island of Cuba, fever and other paludal diseases are said to be fast disappearing from the unhealthy districts where the eucalyptus has been introduced. No information is given as to whether this beneficent tree will grow in other than hot climates.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, January 10, 1874.)*

Operations were performed in the following cases:—Recurrent Tumor of Leg, Vesical Calculus, Hydrarthrosis, Tumor of Leg, Necrosis of Tibia,

* This report, for Jan. 10th, should have appeared last week, but was unavoidably postponed.—Eds.

Conical Stump, Abscess of Thigh, Extensive Laceration of Hand and Arm, Fistula in Ano, Contraction of Anus with Perineal Fistula, Tumor of Eyelid.

Recurrent Tumor of Leg; Amputation.—A myxomatous tumor was excised by Dr. Bigelow, five weeks ago. (See report for December 6th.) The disease reappeared with the commencement of granulation, and had been steadily progressing, without, however, affecting the inguinal glands. Dr. B. amputated at the junction of the middle and upper thirds, taking a single flap from the outer and posterior portion of the leg.

Vesical Calculus; Lithotomy—in a boy, 11 years old. The symptoms had lasted six years. Dr. Cabot operated by the lateral method. The stone was very friable, and of about the size of a hickory nut. It broke into many fragments during its extraction.

Hydrarthrosis of Knee.—A previous operation on this joint was detailed in the report of last week. The joint had again become distended by fluid. Before operating, Dr. Bigelow applied elastic compression above and below the patella, by stretching two thin rubber bands, measuring two by eight inches, transversely across the axis of the limb. He then punctured the joint on its outer side with a small hydrocele trocar, and withdrew five ounces of turbid serum.

Tumor of Leg; Amputation—in a male adult. It had grown steadily for seven years, occupied the fibular side of the leg, and measured nineteen and one half inches in length. The central portion projected between four and five inches from the normal line of the leg, and was of firmer consistency than the rest of the growth. From the amount of fluctuation, it was evident that the tumor contained a large quantity of fluid. Dr. Cabot amputated just above the condyles of the femur by the circular method. On examination after removal, a large cyst was found extending over the entire surface of the growth, holding about a quart of thin, chocolate-colored fluid, which contained cholesterine. A solid mass, of the size of an orange, was attached to the inner wall of the cyst, and was surrounded by thé fluid. The disease had not involved the bones or muscles of the neighborhood. Under the microscope, the solid portion of the tumor proved to be fibro-sarcoma.

Necrosis of Tibia—in an adult, without known cause. Painful for eight years. Dr. Bigelow stated that, although the sequestrum was not loose, he would, on account of the pain, cut down upon it, although, as a rule, he never interfered with a sequestrum until it was detached; unless, possibly, to hasten a superficial exfoliation by touching it with acid. An incision, seven inches long, was made upon the tibia, and the periosteum turned back. Two parallel lines, five inches long and one fourth of an inch deep, were made in the bone with a circular saw (scie à molette). A part only of the included anterior wall could be detached; the sequestrum being everywhere adherent, the operator stated that he did not see that special advantage would result from what he had done.

Conical Stump of Leg; Re-amputation—in an adult. Dr. Cabot dissected back the integument, leaving the cicatrix, and shortened the bones three inches.

Abscess of Thigh—in a man 27 years old, and situated on the outer side of the limb, five inches below the trochanter major. Dr. Bigelow made an incision, and evacuated about one ounce of cheesy pus. A sinus, extending in the direction of the great trochanter, was laid open.

Extensive Lacerated Wound of Hand and Forearm.—About a week ago, the man's hand was caught between a "picker and a beater," producing extensive laceration of the soft tissues and fracture of three metacarpal bones. Free incisions were made by Dr. Bigelow, laying open all sinuses, and the sharp ends of bones were removed by cutting forceps.

Fistula in Ano—in a male adult. No internal opening found. Laid open by Dr. Cabot.

Contraction of Anus, with Perineal Fistulæ—in a young adult. The patient was idiotic, and no history of the case could be procured. The peri-

næum was uniformly indurated, studded with fistulous openings and sinuses, radiating in all directions from the unyielding anus as a centre. Dr. Bigelow stated, before an examination, that the general appearance resembled that caused by cancerous stricture low down, but that the patient was young for that disease. The most probable explanation of the numerous fistulæ, uniform and extended induration and rigid anal contraction, was imperforate anus, for which an operation had been performed in infancy. If so, it was another argument against surgical interference in that affection. In fact, he had long maintained that a child with imperforate rectum had better die than live, except, perhaps, in the very rare occurrence of occlusion of the outer margin of the anus by a mere membrane, as sometimes described, but which he had never met with. He divided the external sphincter, to allow, for the present, a comfortable passage of fæces, and said that any further operative measures were contra-indicated.

Tumor of Eyelid—small, inflamed cyst, located just below the eyebrow of an adult female. Dr. Bigelow excised the growth. H. H. A. BEACH.

(Saturday, January 17, 1874.)

Operations were performed in the following cases:—Hydrocele, Tumor of Back, Cancer of Breast, Tumor of Breast, Dislocation at Shoulder-joint, Necrosis of Ulna, Dislocation at Shoulder-joint, Caries of Tibia, Epithelioma of Cheek, Tumor of Neck, Felon, Painful Cicatrix, Recurrent Parotid Tumor.

Hydrocele—of tunica vaginalis, in an adult, and of seven months' duration. Dr. Hodges punctured the sac with a trocar, and evacuated a half-pint of clear serum.

Fatty Tumor of Back—in a woman twenty-two years old; of the size of a lemon, located in the infra-spinous process of the scapular region. It first appeared two years ago, and had gradually increased without pain. Within two months, it had doubled in size. Dr. Cabot removed it by a straight incision.

Cancer of Breast—of one year's growth, in a single woman thirty-three years old. It involved the whole gland, and was adherent to the skin. The nipple was retracted, but the axillary glands were not enlarged. Dr. Hodges removed the diseased mass by making two semi-lunar incisions and dissecting it from the pectoralis major, the sheath of which was adherent to the gland.

Chronic Mammary Tumor—in a single woman twenty-six years of age. Painless, and of three and a half years' duration. Dr. Cabot made a straight incision of two inches, and squeezed the growth out from the breast; it was adherent to the nipple only, and of the size of a horse-chestnut.

Dislocation at the Shoulder-joint—of nine weeks' standing, in a woman sixty-six years old. Dr. Hodges directed attention to the prominent acromion process, the depression beneath it due to the displacement of the head of the bone, the tense fibres of the deltoid, the projecting elbow and the loss of motion. The head of the bone could be felt below the coracoid process. The patient being steadied by assistants, Dr. Hodges rotated and circumducted the arm forcibly in all directions, to rupture adhesions; he then applied extension to the limb at a right angle with the body, counter-extension being maintained by a folded sheet carried around the chest. In a few moments he brought the elbow suddenly down to the chest, using his own forearm as a fulcrum, near the axilla; the head of the bone readily entered the socket, and was kept there by a swathe carried around the chest.

Necrosis of Ulna—in a young man. The sequestrum was loose, and protruded three inches from the anterior surface of the arm. The orifice of the sinus was enlarged by an incision, and the dead bone extracted by Dr. Cabot.

Dislocation at the Shoulder-joint—of eleven weeks' standing, in a woman seventy-two years old. The dislocation was sub-coracoidal, and presented

similar appearances to those which characterized the case just described. Dr. Hodges reduced it by the same method, with some additional effort. Attention was called to the ease of reducing long-standing dislocations in cases like these, as compared with what might be expected under similar circumstances in young and vigorous male subjects.

Caries of Tibia—in a woman twenty-six years of age. Since she was three years old, fragments of dead bone had from time to time been discharged. Dr. Cabot enlarged the fistulous opening, and, with a gouge, removed the disease.

Cancer of Cheek—in a woman of seventy years. An epithelioidal growth, two inches long and one inch broad, slightly raised from the surface, situated below the zygoma, in front of the ear, secreting a foul-smelling discharge. A movable nodule, of the size of a grape and not ulcerated, had recently appeared in the skin, one inch below the growth just described. Both these growths were superficial, and not adherent to the parts beneath. They were excised by Dr. Hodges. The cheek was dissected up on each side of the larger wound, to permit the approximation of its borders.

Tumor of Neck—situated in the supra-hyoid region of a young male adult. It was first noticed, on the left side, about one year ago, had gradually grown toward the median line, and was somewhat painful. It was partly solid and partly fluctuating. It filled the whole interval between the two sides of the lower jaw, projected beneath the tongue internally, and bulged below like a large double chin. Dr. Cabot considered it a form of ranula. He punctured it, through the mouth, with a trocar, and evacuated about two ounces of slimy and bloody fluid containing cholesterine. A counter-opening was made beneath the chin, and an India-rubber tube, with perforations along its sides, was passed in at the mouth and brought out through the external incision, to serve both for drainage and as a seton.

Felon—incised by Dr. Hodges.

Painful Cicatrix—in a stump of the thigh, after amputation for knee-joint disease, some years since. The whole cicatrix had been dissected out once. There now remained a hard, painful spot, about the size of a walnut, on the under side of the cicatrix. Dr. Cabot excised the indurated portion, at the bottom of which was a small granulating sinus. This he dissected out.

Recurrent Parotid Tumor—in a man fifty-three years of age; the original growth was of twenty years' standing. Four years ago, it was removed by Dr. Bigelow. It re-appeared one year ago, gradually increased without pain until it attained the size of a hen's egg, and had become somewhat attached to the superficial and deep tissues of the region. Dr. Hodges made a curved incision over the tumor, and reflected the flap toward the ear. He then dissected the tumor from the masseter muscle, posterior border of the ascending ramus of the lower jaw and the mastoid process. Old cicatrices impeded the dissection, and a large number of vessels required ligature. The disease was sarcoma. It was remarked that the lapse of twenty years at this period of life not unfrequently converts a tumor, otherwise benign, into a malignant growth liable, after removal, to local recurrence.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE surgical operations on Friday last, January 23d, were as follows:—

Dr. Cheever performed Wood's Operation for the radical cure of inguinal hernia, in two cases. The patients were adults. A description of the operations is omitted, as they differed in no particular from the details presented in surgical text-books.

Dr. Thorndike operated in a case of Traumatic Gluteal Aneurism. The patient was a man about thirty years of age. Last Christmas day, he became engaged in a quarrel, in the course of which he was stabbed in the left buttock, the left thigh being flexed upon the abdomen at the time of the in-

jury. The wound was at once followed by copious hæmorrhage. The bleeding was controlled, but the weakness resulting from the loss of blood forced the patient to his bed. Presently, intense pain developed in the injured region, and shot down the sciatic nerve; and when Dr. Thorndike first saw the patient, at the end of ten days after the injury, the continued use of morphia was necessary to afford any degree of comfort, day or night.

On examination of the part, Dr. Thorndike found the wound quite healed. Just behind the great trochanter, and over the sacro-ischiatic foramen, was a pulsating tumor of the size of a goose-egg; its outline was irregular. On auscultation, a distinct bruit was evident. There was great tenderness on pressure, and the pain was excessive. In the two weeks' interval since this first examination, the symptoms had increased in severity, and now demanded surgical interference for their relief.

Dr. Thorndike said that, in gluteal aneurism, there was a choice of two operations—either to cut down on the aneurismal tumor, turn out the clotted contents and tie the injured vessel in the wound, or to adopt Hunter's operation and ligate the internal iliac. The latter was attended with the greater risk, and was adapted rather to a spontaneous aneurism whose walls possibly extended within the pelvis, than to a traumatic aneurism arising from an injury of the artery outside the notch. The cause of the aneurism would determine the choice of the operation. He therefore adopted the old method of operating.

To control the hæmorrhage, Skey's abdominal tourniquet was applied, but though carefully adjusted upon the aorta, it failed to compress effectually, and the bleeding was prevented by digital pressure on the artery against the pelvic edge, in the wound.

To expose the tumor, two incisions were made, one, eight inches long, starting two inches below and just behind the great trochanter, and extending obliquely upward and backward toward the sacrum; the other, four inches long, extending from the middle of the former, upward, toward the crest of the ilium. The tissues were divided down upon the coagulum, and the incision into this mass was immediately followed by a gush of clotted blood and by a fresh arterial flow from the injured vessel. Not without difficulty, a ligature was passed, by means of an aneurism-needle, around the vessel on the proximal side of the wound and then on the distal side. Examination showed that the knife producing the injury had penetrated the gluteal artery just as the vessel entered the sacro-ischiatic foramen to leave the pelvis.

The result of this operation will be noted in a future report.

Dr. Cheever showed the patient on whom he had operated two weeks previously for hare-lip. The wound was entirely healed. The line of the lip was perfect, without any notch, and the scars were hardly visible.

On Tuesday, January 17th, Dr. Cheever performed Excision of the Hip. The patient was a female, 37 years old. Hip disease existed in childhood, and went through its usual stages of abscess, sinus, dislocation and spontaneous cure. For twenty-four years, the hip remained well. The patient walked with a crutch; the limb was wasted, shortened and inverted. She was free from pain. Three years ago, she had a fall and a sprain. This lighted up anew the slumbering tendencies of the diseased joint. Pain, abscess, sinus, hectic, followed, and the patient has now been bed-ridden for a year and a half. An operation is now sought by her to relieve pain, but not with the expectation of getting a useful limb.

An irregular V-shaped incision was made through the two sinuses. The head of the femur was absorbed. The neck and trochanter rested against a new socket on the dorsum ilii, which was deepened by new bone. Extensive disease of the femur required the removal of three inches with the saw. Three loose, pointed fragments of carious bone were extracted; the largest lay against the obliterated true socket. No farther disease of the pelvis was found. The cavity was trimmed with the gouge, and left open to suppurate. Amputation would have been easy, but must have left a diseased stump.

F. W. Draper.

Medical Miscellany.

FRIGHT to the mother during pregnancy is alleged by Dr. W. W. Ireland to be a not very uncommon cause of idiocy.

A DEATH FROM HÆMORRHAGE, consequent on rupture of the Fallopian tube, is reported by Dr. J. B. M. Miller. It occurred in a robust, healthy colored girl, 26 years old; it was thought to be dependent upon extra-uterine fœtation.

CHOLERA IN POLAND.—From the beginning of the recent outbreak of cholera up to the middle of October, the total number of cases in Russian Poland amounted to 56.477, of which 26,234 were fatal. In Warsaw alone, there occurred during this period 4,933 cases, 1,887 proving fatal.

APPOINTMENT.—Dr. H. Knapp has been appointed ophthalmic surgeon to the Charity Hospital, New York, *vice* Dr. H. D. Noyes, resigned.

DEATHS FROM CANCER.—Among the twenty-three deaths from cancer, which have occurred during the past twenty-four years in the experience of one of our life insurance companies, only one seems to have been hereditary. In this case, the only other member of the family who appears to have had the disease was a sister.—*The New York Medical Record.*

STATISTICS OF MORTALITY.—A most interesting paper has been prepared by Dr. A. H. Buck concerning the causes of 1,000 deaths in the mortality experience of a life insurance company in New York. It was proved that the most fatal element by far in the list of losses was consumption, 268 deaths, or 27 per cent. of the entire number, being referred to this malady.

ARSENICAL PAPER HANGINGS.—"Arsenic occurs not only in the bright green papers, but, also, occasionally in the white or cream-colored enamel papers, so frequently used for drawing-rooms, and in drab papers tinted with native ochre."—*The Lancet*, Jan. 3, 1874.

RATIONAL MEDICINE WELL DEFINED.—The Italian journals relate that a vice-professor of the Faculty of Medicine of Naples, having asked permission of the Faculty to open a course on homœopathy, received the following answer:—"The Faculty could not grant the authorization, seeing that rational medicine, which is taught on the basis of natural sciences, excludes allopathy as well as homœopathy, and, indeed, all absolute systems of medicine."—*The Lancet*, Dec. 13.

PUBLIC URINALS IN PARIS.—There are, in Paris, 730 places of public accommodation styled "urinoirs." This number includes 40 having the shape of a kiosk, and belonging to the Compagnie des Kiosques, 234 of the same shape belonging to another company, and for each of which the city pays tribute, 228 having the shape of stalls or boxes lighted by gas, and about 200 having a central position, and three stalls on each side. The latter is the newest model, quite recently adopted. It is gratifying to know that the two uncovered slabs of slate so commonly met with at the angles of houses, and which exposed the occupiers to the gaze of passers by, will be shortly entirely suppressed.—*The Lancet.*

SIREN-LIKE MONSTER.—Dr. William Maclaren reports a case of siren-like, malformed fœtus, delivered at full term. From the pelvis downward, both limbs were fused into one pyramidal mass, bifurcating into a fan-shaped arrangement of the feet. Anteriorly, at the junction of the abdomen with the lower extremities, two inches below the umbilicus, and exactly in the mesial line, was found a small, papular nodule of skin, without any opening. At a corresponding point posteriorly, and one and a half inches below the coccyx, hung, like a caudal appendage, a well-formed penis, with a pervious canal, without any trace of scrotum, testes or anus.—*Edinburgh Medical Journal.*

MONSTROSITY.—A singular case of monstrosity is related by Dr. Wm. Elmer, in the Transactions of the New Jersey Medical Society for 1873. A woman was delivered, in November, 1871, of a male child, which was discovered to have a hare-lip, and, upon further examination, a cleft palate was found to completely open into one of the buccal and nasal cavities. This pitiable object was unable to nurse, and survived only two or three months. Subsequently, the mother was again confined, and the same deformities were found to exist in this child, also, only in a worse degree. At last accounts it was doing well.

MEDICAL ZEAL.—One of the district reporters of the New Jersey Medical Society, in order to collate statistics referring to the prevalent diseases of the county, wrote to every practitioner in the county, but received replies from two only. He, therefore, winds up his brief paper as follows:—"If it should ever be my misfortune again to be elected to this responsible office, I shall direct all my correspondence to the undertaker, hoping, thereby, to get results, if nothing else. . . . . Quite adverse to the Irishman's description of the steam-shovel, viz.: 'You can shovel, but you cannot vote;' our members *vote*, but do not *shovel*."

NOTES AND QUERIES.

EFFECT OF SUGAR UPON GENERATION.

PROF. HENRY TANNER, Queen's College, Birmingham, says:—"I have every reason to believe that the action of sugar is most important in its influence upon the generative system, and I think there is just cause for considering that any animal may, by its use, be rendered incompetent for propagating its species. A breeder of some eminence, with a view to an improvement in the condition of his herd, added molasses to the dry food he gave to his stock. It certainly produced the result he anticipated, for their general appearance and condition were most satisfactory; but this was accompanied by an influence he had never expected, for his stock, which had always realized high prices as breeding stock, now, with very few exceptions, proved to be valueless for that object, male and female being alike sterile."

Has any one experimented on human stock in the same way? Fat women are not always sterile, but some are, and many lean women have immense families. QUERY.

ERRATA.—In Dr. Dobell's paper on Pancreatine, in the number of December 11th, on page 575, line 6, insert the words "half an ounce of lard" before the words "20 grains." Also, on page 577, line 8, insert "of" before "wasting" and erase "fever" after it.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending January* 17, 1874.

Boston, 133; Worcester, 9; Lowell, 16; Milford, 6; Chelsea, 2; Salem, 6; Lawrence, 14; Springfield, 4; Lynn, 10; Fitchburg, 1; Taunton, 8; Newburyport, 4; Somerville, 7; Fall River, 21; Haverhill, 4; Holyoke, 1. Total, 246.

Prevalent Diseases.—Pneumonia, 37; Consumption, 35; scarlet fever, 21; typhoid fever, 8.

Taunton reports two deaths from smallpox.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 24th, 140. Males, 68; females, 72. Accident, 3; apoplexy, 1; anæmia, 2; disease of the bladder, 1; bronchitis, 5; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 7; burned, 1; cancer, 2; cerebro-spinal meningitis, 2; cyanosis, 2; consumption, 21; convulsions, 6; croup, 1; debility, 1; diarrhœa, 1; dropsy of the brain, 3; drowned, 1; diphtheria, 1; exhaustion, 1; epilepsy, 1; erysipelas, 1; scarlet fever, 14; typhoid fever, 2; gastritis, 2; disease of the heart, 4; white swelling of knee, 1; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 2; inflammation of the lungs, 10; marasmus, 7; noma, 1; old age, 7; paralysis, 3; pleurisy, 1; premature birth, 3; peritonitis, 1; puerperal disease, 1; rheumatism, 1; starvation, 1; teething, 1; tumor, 2; uræmia, 1; whooping cough, 1; unknown, 2.

Under 5 years of age, 52; between 5 and 20 years, 20; between 20 and 40 years, 20; between 40 and 60 years, 23; over 60 years, 25. Born in the United States, 111; Ireland, 21; other places, 8.

THE

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Original Communications.

STRICTURE OF THE URETHRA.

By GEORGE W. GAY, M.D. Harv.

Surgeon to the Boston City Hospital.

I.—*Organic Stricture; Retention; Perineal Section.*—M. C., laborer, aged 58, has had a stricture more than thirty years, the result of gonorrhœa. He has had repeated attacks of retention, which have heretofore been relieved by catheterism; the last attack began two days before he entered the hospital, October 14th, 1872, and was brought on by dissipation and exposure. He passes urine *guttatim;* the bladder extends nearly to the umbilicus; the pain and restlessness are severe. There is a stricture in the bulbous portion of the urethra, through which it is impossible to pass an instrument. An opiate was given per rectum; neither this nor hot baths gave the desired relief. He was then etherized, and further attempts were made with catheters and bougies, but with no better success; the bladder was punctured per rectum with the curved trocar, and a quart of urine drawn off; the canula was retained in the bladder.

Three days afterwards, the canula was removed, and, although micturition was improved, it was impossible for him to completely empty his bladder. Repeated efforts were made during nearly a fortnight to dilate the stricture, but with little progress. Another attack of retention now occurred, to relieve which and the stricture at the same time, perineal section was performed in the following manner.

The patient was etherized, and put in the lithotomy position. A grooved staff having been passed as far as possible, an incision was made upon it through the perineum, opening the canal just anterior to the stricture. Through this small opening it was possible to pass a grooved probe through the stricture; the constriction was divided, and an elastic catheter (No. 10) was introduced through the entire canal into the bladder and secured. The stricture was about one inch in length, and was at a junction of the bulbous and membranous portions of the canal. As the hæmorrhage from the wound in the bulb was pretty free, the wound was plugged with a sponge dipped in ferric alum.

In three days, the sponge and catheter were removed, and urine allowed to flow through the wound. There was only moderate con-

stitutional disturbance. One week after the operation, he had control of his bladder, and part of the urine came through the meatus. At this time, he lost about four ounces of blood from the perineal wound, apparently the result of getting out of bed at night and straining at stool. The catheter was introduced and the wound plugged.

In two weeks from the operation, he took a No. 8 catheter; and in four weeks, a No. 10. Most of the urine came from the meatus, and the wound was closing well. He was discharged at the end of three and a half months. The perineal opening had nearly closed, so that very little urine came through it; the urethra took a No. 12 readily, and he was much more comfortable than at the time of entrance.

This patient again entered the hospital August 14th, 1873. The wound in the perineum was well. The stricture admitted only a capillary bougie, the stream of urine was very small, and micturition was frequent and difficult. He had neglected the advice, not only in regard to his stricture, but as to his habits generally.

Holt's dilator was now used a few times, with some slight benefit, but the stricture was too far from the meatus to get the full benefit of this instrument. On August 28th, the use of Gouley's tunneled sounds was begun, with the most excellent results; the instruments were easily passed through the stricture on a whalebone guide, and were used every day or two. In ten days, he could pass a good stream and take a No. 10 easily. He was again discharged, with strict orders to report if he had trouble in micturition. As he has not appeared, it is concluded that he is comfortable.

The operation of perineal section is becoming more rare as our means of dilating stricture and of emptying the bladder are improved. As the operation seldom cures the stricture, it is done as a last resort. The large majority of strictures, taken in season, may be kept dilated without much trouble; it is the neglected, irritable, undilatable cases which require this operation—cases in which the patient is worn out with cystitis, and with urethritis from long-continued ineffectual efforts at dilatation.

In cases of retention from stricture, it is generally far better to empty the bladder, just above the pubes, with the pneumatic aspirator, two or three times a day, for a few days, than to persist in passing, or trying to pass, a catheter through an inflamed or congested urethra. It has been the practice in this hospital, for some time, to empty the bladder in this way, if a catheter cannot be readily introduced. This operation is especially useful in those cases of retention from "spasm" or congestion of the urethra, so common after a debauch; often, only one or two aspirations are required before the patient is able to pass water voluntarily. No accident has ever happened here in doing the operation, nor have any bad results ever followed it.

We think it better to empty the bladder above the pubes with a syringe and small, hollow needle, than by the rectum with the common curved trocar, for the following reasons:—

1. It is safe. No accident has yet been reported out of the many cases in which it has been used; whereas abscess of the prostate and cellulitis have followed the recto-vesical puncture. A man was in this hospital a few years ago upon whom the latter operation had been performed before his entrance, and the puncture was followed by a prostatic abscess, which nearly cost him his life.

2. The pain is so slight that ether is not required, as it generally is in the old operation.

3. It can be repeated as often as is necessary without fear of harm, and no canula or tube is to be worn in the meantime.

4. It is easily done, much more easily than the rectal puncture, as the manipulations are all in plain sight.

5. The bladder can be thoroughly emptied, and, in those cases of atony or paralysis of the muscular coat, much more thoroughly by the new method than by the old.

6. The functions of the rectum are not interfered with.

For dilating strictures of the urethra, we would call attention to two very useful instruments. First, the conical steel sound, the point of which is three or four numbers smaller than the shaft, and the tapering portion extends one and a half inches from the point instead of all the way to the handle. Secondly, Gouley's tunneled steel sound. "It is a grooved, conical steel sound, with a canal one eighth of an inch in length at the vesical extremity and with a curve equal to one fifth the circumference of a circle three and a quarter inches in diameter."* The curve is about the same as that recommended and used by Sir Henry Thompson. This sound is used with a small whalebone bougie as a guide, and for close strictures of the bulbous and membranous portions we know of no better instrument for dilatation and divulsion. The conical sounds are not made smaller than No. 7 (English scale) and the tunneled sounds not smaller than No. 3.

Erichsen, Gross, Sir Henry Thompson and others advise that a catheter be retained in the bladder forty-eight hours or more after perineal section, for the purpose of preventing infiltration of urine, and to hasten union of the wound by preventing the urine from coming in contact with the freshly cut surface. Gouley remarks on this point:†—"I believe that the retention of a cathether in the bladder, after external urethrotomy, even for forty-eight hours, is not only unnecessary but harmful. Unnecessary, because it does not fulfil the supposed indication of preventing the flow of urine through the wound, and because the contact of the urine with the freshly cut surfaces does no harm, as is exemplified by lateral and median lithotomy, and also by the cases which have been detailed. Harmful, because the presence of an instrument—a foreign body in the bladder—sometimes causes ulceration and perforation of that viscus, and does give rise to inflammation and urethral

* Diseases of the Urinary Organs, page 53.
† Op. cit., page 133.

fever." He gives the details of thirty-one (31) cases of external urethrotomy, with four deaths, in periods varying from two and a half to forty-six days after the operation. In twenty-nine of these cases, no catheter was retained and no urethral fever followed; in the only two cases in which it was retained, urethral fever set in and ran its course, and in one of them an old cystitis was lighted up afresh. The wound is left to itself, as after lithotomy; the scrotum is supported by a bandage, and dilatation is begun on the second day with a large steel sound, which the patient is taught to pass himself as soon as the wound is healed.

The catheter, in these cases, is oftentimes very troublesome; constantly requiring cleansing and changing, and very apt to slip out of the bladder and at the most inconvenient times, so if it can be dispensed with, as Gouley's cases seem to show, it will be a great relief to both patient and surgeon.

II.—*Stricture of two and a half Years; Internal Urethrotomy.*—J. H., 23, laborer, has had a stricture two years and a half, the result of gonorrhœa. It is half an inch long, situated two inches from the meatus, and can easily be felt externally. Micturition is painful; the patient cannot pass a stream, and has had several attacks of retention.

During the first three weeks he was under treatment, the stricture was repeatedly dilated to the normal size with Holt's and Gouley's instruments, but in forty-eight hours it would be nearly as bad as ever. Internal urethrotomy was accordingly resorted to. Ether was not used, and the pain was easily borne. A free incision was made through the floor and roof of the stricture with a urethrotome cutting backwards; a No. 10 bougie followed easily. The hæmorrhage was only a few drops, and no bad results followed. The urethra was dilated every other day for ten days, when it took a No. 10 easily, and the stream became as good as ever it was. The patient has not been heard from since he left the hospital, three months ago, although he promised to return if he had any trouble with the stricture. He was taught to dilate the stricture himself, and was furnished with a conical bougie.

Internal urethrotomy for stricture in the deeper portions of the canal is not used as much in this country as abroad. American surgeons generally prefer external urethrotomy or divulsion in these cases, as being safer and equally successful. Sir Henry Thompson has done internal section two hundred times or more, in all parts of the canal liable to stricture, with only one death, one abscess, and two cases of extravasation; thus, in his hands, it is as safe as any operation upon these organs can well be. The dangers are hæmorrhage, extravasation and abscess. For stricture anterior to the scrotum, the best authorities, both here and abroad, agree as to the superiority of this operation, as being safe, not very painful, seldom requiring ether, not difficult to perform, and giving better results than other methods of treatment. It is indicated in resilient, irritable and undilatable cases, and should

be done upon a guide with a shielded blade, unless the stricture is very near the meatus, when a narrow, probe-pointed knife is sufficient. Dilatation should be resumed in two or three days and continued indefinitely, as in all cases of stricture after any operation.

575 *Tremont Street.*

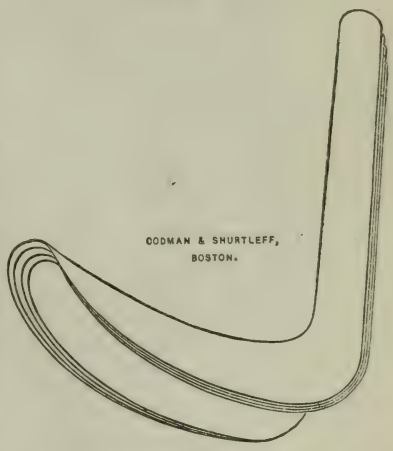
NEUGEBAUER'S SPECULA.

By James R. Chadwick, M.D.,

Lecturer in Gynæcology at Harvard Medical School; Physician to the Boston Dispensary for the Diseases of Women.

These specula were first exhibited at the annual meeting of "Physicians and Naturalists," in Vienna, on September 20th, 1856, by Prof. Neugebauer, of Warsaw. The set consists of four blades, with short, flat handles, all of which fit into each other compactly, as represented in Fig. 1. They are consequently much less awkward and cumbersome to carry than either Sims's or Fergusson's speculum.

Fig. 1.

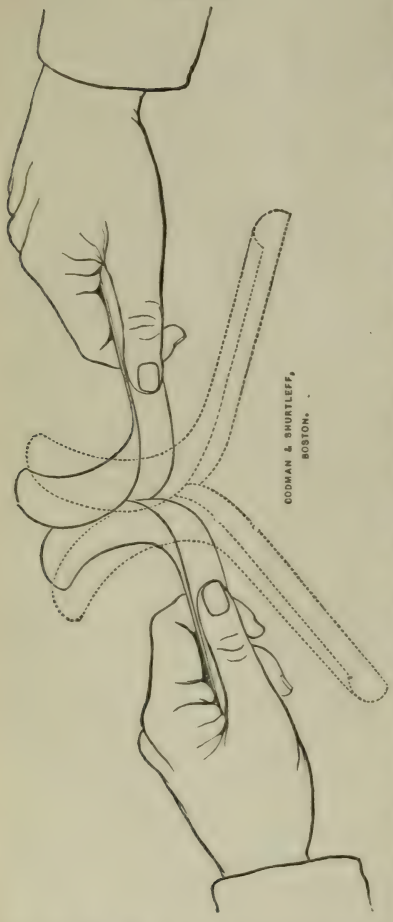


Each blade resembles in shape that of Sims, differing but slightly in the curve, and in not having its end rounded up, as is the case with Sims's blade. The main peculiarity of the instrument consists in the different blades being so proportioned to each other that any two consecutive sizes may be combined to form a tube; the lateral edges of the smaller are then enclosed within those of the larger. (Fig. 2, next page.) The larger of the two selected is introduced posteriorly, as Sims's would be; the other enters beneath the pubic arch. The point of the latter, which, at the outset, is in the hollow of the opposite blade, gradually emerges, as the blade is pushed forward. It requires a little practice to enable one to perform this manipulation without inflicting some pain upon the patient. The result is a perfect tube, through which the cervix may be readily inspected. The four blades form three complete specula of different sizes.

The chief merit of the instrument is manifested, if, as often happens, the cervix is so directed that no view of the os can be obtained. By advancing one or the other blade, and, more especially, by rocking one upon the other, the vaginal portion may be tilted in the direction necessary to bring its orifice into the lumen of the speculum. When both blades are rocked forwards by means of the han-

dles, the uterine extremities of the former separate and distend the vagina; this movement exerts a traction upon the uterus, which draws it downwards, nearer the light and within reach of the finger, if its density and firmness needs to be tested by the touch. In this respect, it contrasts most favorably with Fergusson's speculum, which always pushes the organ away from the vulva, and admits a comparatively meagre light. By the same divergence of the blades, the lips of the external os, when soft and patulous, may be drawn apart, thus rendering the cavity of the cervix visible for a short distance.

FIG. 2.



When one blade is held firmly and the other rocked, the traction upon the vaginal portion is chiefly to the corresponding side, and serves to change the direction of the uterine axis, so that the cavity of the organ assumes the most favorable position for inspection or treatment. The same divergence of the ends of the blades has the further advantage of exposing to view the whole vaginal portion of the uterus, as well as the vault of the vagina, instead of merely showing, as does Fergusson's speculum, the os and a small extent of the surface surrounding it.

This speculum is especially useful where the sound is to be employed as an aid to diagnosis; for, the uterus being drawn toward the vulva and such versions as may exist having been corrected by the means already described, the organ presents itself in the most favorable position for the introduction of the sound, and the speculum does not interfere with this manœuvre, no matter how greatly the sound is bent.

When being withdrawn, the handles should be rocked outwards, for the purpose of approximating the uterine ends of the blades, so that they may most readily pass through the vulva. Dr. Robert Barnes, in his new book on the Diseases of Women, states that two hands are required to hold the two blades *in situ*; this, however, I have

not found to be the case, when the blades are properly adjusted to each other. After they are once in position, the constriction of the vaginal walls holds them so firmly together that they practically form one instrument, and, in ordinary cases, either handle will properly control the whole tube. Of course, these remarks do not apply to the occasions when one blade is rocked so as to exert great traction upon one side of the vaginal portion, for two hands are then evidently indispensable.

I have been so well satisfied with the practical working of this speculum at the Dispensary for Diseases of Women, that, for the past few months, I have only twice been led to resort to any other. In the first instance, the uterus was drawn up and fixed in so high a position that the curve of the blades was not sufficiently long to fit the unnaturally elongated vagina. In the second case, the vagina was so voluminous and its walls so relaxed, that, in spite of great divergence of the blades, folds of the vagina still interposed between their ends and the uterus, thus obstructing the view.

Dr. Barnes has constructed a modification of this speculum, which is more bulky, and, in my opinion, less serviceable than the original.

I trust that the above description will justify my drawing the attention of the profession to a speculum which, though comparatively old, has failed to meet the reception which, I think, it deserves.

The Influence of Posture on "Presystolic" Cardiac Murmurs.—The influence of posture in altering or removing cardiac murmurs forms the subject of a valuable paper by W. R. Gowers, M.D., in the *Practitioner* for December, 1873. Dr. Gowers states that several cases have come under his notice in which, after a careful and skilled examination in the erect posture, a heart has been declared free from murmur, when, had the patient been made to lie down, a bruit would have been heard, which could not have been overlooked. He believes that in most instances the murmur which precedes the first sound, and is commonly regarded as characteristic of mitral obstruction, is both louder and longer in the recumbent than in the erect posture, and that in many instances, more frequently than in the case of any other cardiac murmur due to an organic cause, it may be heard in one posture and not in another, may be loud when the patient is lying down, and inaudible when he is standing up.

Dr. E. P. Hurd, of Newburyport, Mass., in his address before the N. H. Medical Society, states that he has found chloral hydrate especially useful in the insomnia of infants. One grain may be given to a restless infant every hour till sleep is induced. Gelseminum admirably fulfils many of the requirements of a hypnotic, for its action seems to be largely that of an exalter of sympathetic function, and it lessens cerebral congestion. Three drops of tincture of gelseminum with three of laudanum and ten grains of bromide of potassium, every two hours, has succeeded in breaking up insomnolence when other remedies have failed.

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. Hayden, M.D.

Retro-pharyngeal Abscess in Infants.

In an article in the *Jahrbuch für Kinderheilkunde*, July, 1873, Dr. Schmitz presents a report in full of sixteen cases treated in the Children's Hospital of the Prince of Oldendurg, at St. Petersburg. In addition, is the report of the autopsy on one case which died immediately after admission, showing, in addition to the signs of typhoid fever, a retro-pharyngeal abscess of metastatic origin.

Although this is not an every-day disease, still, it is not very rare, often escaping recognition, and death is sometimes the result of want of proper treatment.

In the author's sixteen cases, all belonged to the primary idiopathic form, and no case in his experience was attributed to caries of the vertebræ, although the latter disease has not been a very rare one to meet with in the above institution. In most cases, the disease seems to have, as its starting-point, a lymphadenitis. It has been demonstrated, anatomically, that retro-pharyngeal lymphatic glands exist up to the third year, and two of them are generally to be found on a level with the second and third cervical vertebræ, on each side of the median line, at about the junction of the posterior with the lateral wall of the pharynx; they lie imbedded in the loose cellular tissue, between the superior constrictor and prevertebral muscles. When there is but one of these glands, it lies, generally, on the right side. Gilette found, in seven subjects, two glands five times, and twice, only one, both of these being on the right side. The afferent lymphatic vessels of these glands come in three or four principal branches from the mucous membrane of the upper portion and sides of the pharynx and of the upper surface of the soft palate; the vasa efferentia go to the glands situated externally to, and somewhat below, the tonsils, uniting with those coming from the tongue. After the third year, we find only one gland or none at all. This explains the common situation of retro-pharyngeal abscesses more to one side and not exactly on the median line. In the cases reported, it is mentioned that, ten times, the abscess was situated mostly to one side, five times to the right and five times to the left. In seven of these cases, there was, on the corresponding side, below the angle of the lower jaw and underneath the sterno-cleido-mastoid muscle, a distinctly fluctuating tumor, directly communicating with the retro-pharyngeal abscess, as was shown after opening it. The same one-sided, external abscess was found in four of the six cases in which no mention is found made as to the situation in the pharynx, and in these, too, there was a direct communication with the internal purulent collection. In four of those cases where there was no external abscess, there was no swelling in the neck; in one, a slight enlargement of the glands in both fossæ submaxillares.

A second argument in support of the origin of these abscesses in inflammation of the lymphatic glands is their slow development. In

most of the author's cases, the mother had noticed for two or three weeks a difficulty of breathing, and during this time there must have been more or less obstruction in the pharynx. In one case, observed by him throughout the whole course of the disease, it was two weeks from the time of first noticing a circumscribed hard swelling in the posterior pharyngeal wall before distinct fluctuation could be felt, without the tumor, in the meantime, growing larger to any amount. Such a protracted course we should not have in a simple phlegmonous inflammation of the cellular tissue. Acute inflammations of glands, on the contrary, have a slow course, and it is only after the capsule of the gland has been broken through that inflammation and suppuration rapidly extend.

Lymphadenitis, it is acknowledged, is not always the starting-point of the disease, as two of the cases show, where an abscess formed first externally in the neck, and suppuration in the pharynx did not follow until several days afterwards.

The author confesses complete ignorance as to the cause of the disease. Scarlet fever rarely leads to it; neither scrofulosis nor rhachitis has been observed to produce any disposition thereto ; the only case of metastatic origin has been above referred to ; it is universally admitted that it occurs most frequently in the first two years of infant life. The months of February, March, September and October were the most favorable for its occurrence.

The symptoms of completely formed retro-pharyngeal abscess are so strikingly characteristic that, when once seen, it would be very difficult to err in its diagnosis. The author draws the following picture of a perfectly-formed case :—The countenance is generally pale, often slightly cyanotic, the lips livid ; sometimes the child's face has a rosy look, even when the respiration is more or less impeded. The expression is nearly always anxious, the eyes wide open. The mouth is half open, the respiration goes on nearly altogether through the mouth, is labored, and has a peculiar snoring or rattling palatal sound, very different from that in croup. From time to time, the breathing stops suddenly, accompanied by a flapping sound ; the child then, with a painful distortion of the face, makes a swallowing motion, and the breathing then goes on again as before, with a slight cry. The child's cry has the peculiar palatal tone, and is short and suppressed, owing to the impeded respiration. The head is bent backwards, and the neck is stretched out. The submaxillary region, thus made prominent, generally in the neighborhood of the angle of the lower jaw, appears swollen, sometimes on one, sometimes on both sides. The attempt to move the head to one side or the other causes the child to struggle and cry—not always, however ; if bent with any force forwards, respiration stops. The child is frustrated in its eager attempts to nurse, from want of air, and is compelled to let go, gasping anxiously, and then crying loudly. Regurgitation of the milk often takes place through the mouth and nose. When asleep, the child at first breathes with its mouth open ; as the lips more and more approach each other, and the mouth closes, the movements of the nostrils become stronger, the breathing shorter and shorter, until, finally, there is complete closure of the air-passages for a few seconds, the respiratory movements of the thorax continuing, with drawing in of the lower ribs and depression of the intercostal spaces. The child then becomes restless,

rolling the head from side to side; finally, opening the mouth with a deep inspiration, he begins breathing again. Owing to the frequent interruption to sleep in this manner, as well as to the incomplete decarbonization of the blood from imperfect respiration, the child lies almost continuously in a comatose condition.

Inspection of the pharynx is difficult, often impossible. If successful, the uvula and soft palate appear red, sometimes pale and œdematous; the former is always pushed forwards. Sometimes it is possible to see the tumor, generally situated to one side of the median line.

Palpation is of the greatest importance and should never be omitted. By this means, in a few seconds, it is always possible to convince oneself satisfactorily of the presence, the situation, size, and the fluctuation, if existing, of the tumor; and thus not only is one enabled to make sure the diagnosis, but also to decide upon the proper treatment.

In the great majority of the author's cases, the abscess was already distinctly formed when first seen. Only three cases came under observation at an earlier stage.

Whenever there is difficulty of breathing in a child, with no disease of the respiratory organs to explain it, especially if there be any swelling in the neighborhood of the angle of the lower jaw, but even without such, the possibility of a retro-pharyngeal abscess should be thought of, and a careful palpation of the pharynx should be always made.

Exact measurement of the temperature was made in only one case before opening the abscess. This gave, in the beginning, normal temperature; when fluctuation became distinct, there was a slight increase at evening. In all cases, after opening the abscess, there was a slight fever of suppuration of short duration, or else absence of fever entirely.

There is sometimes cough, but never much to speak of, and in no way resembling that in croup.

The peculiar character of the voice is not nasal, as Bokai describes it, nor does it resemble that accompanying a nasal catarrh, or any narrowing or obstruction of the nasal passages. It is not the nasal sound caused by a perforation of the hard or soft palate. It is due to the impeded entrance of air to the nasal cavities, and can be imitated easily if, with the mouth open, by voluntary muscular action, we, on the one hand, raise and draw forwards the hyoid bone, and, on the other hand, by contraction of the levator palati muscle, fix the soft palate and make tense the posterior palatal arch. It is the same tone we hear produced where there is a considerable enlargement of the tonsils. In only one case could it be confounded with croup, namely, when the abscess is situated very deeply behind the larynx, or still deeper. Such cases are extremely rare, however, and the difficulty of swallowing would be so prominent a symptom that a mistake would be soon rectified.

The author does not regard the prognosis so unfavorable as is generally stated. It is only so where the disease has not been recognized, and the proper treatment not adopted. Ninety-one cases, accumulated by Gautier, are very instructive in this respect. Of these, twenty-five were wrongly diagnosticated, and all terminated fatally. Of the remaining sixty-six, only sixteen died; of these last, no opening was made in eight cases; in four, the opening was an insufficient one; in

the other four, gangrene set in. In all the fifty that terminated favorably, the abscess was opened. In the author's cases, thirteen recovered, one was removed from the hospital before opening of the abscess, and two died. Of the two fatal cases, one was brought but once to the hospital, the abscess was opened and the child carried home; the mother appeared the next day with the news that the child died suddenly, twelve hours after the operation. The cause of death in this case was, probably, œdema of the glottis. The second fatal case was two weeks under observation; the abscess was opened on the day of entrance, and the child was doing well; contrary to advice, it was taken home; according to the mother, the child grew very emaciated, the wound closed, the abscess refilled, and, a few days afterward, the child died.

No case of spontaneous opening was observed. In such cases, according to Gautier, death has always supervened from suffocation, owing to the escape of pus into the larynx. The prognosis, therefore, depends upon an exact diagnosis and early operative procedure.

With regard to treatment, the sovereign remedy is the knife, as soon as fluctuation can be detected. Internal remedies are useless. With regard to external remedies in the early stages, with children so young, the application of cold by compress could alone be thought of. The author does not advise this, but prefers warm applications to hasten suppuration, especially when there is a swelling externally, with deep-seated fluctuation. The application of iodine, as recommended by Gautier, would be useful in some cases. The author did not use this remedy in any of his cases, but would be inclined, hereafter, in a case where there was an undoubted swelling, but no fluctuation in the posterior wall of the pharynx, and the diagnosis sure, to paint the soft palate and mucous membrane of the pharynx with tincture of iodine or solution of the iodide of potash, with the hope of hastening suppuration, or, perhaps, of preventing it. It is more rational to apply the iodine where the vasa afferentia have their origin. The application to the neck itself is absolutely useless. The opening should, as a rule, be made on the inside, unless the external abscess is so near the surface that a free incision is possible, and complete exit to the pus assured. Sometimes, both are necessary.

The method of operating is as follows:—The child, wrapped up to prevent movement of the hands, is held in the nurse's lap; the head must be held exactly straight by a third person. The index finger of the left hand (protected, if necessary, against the teeth) is inserted rapidly into the pharynx, and the most prominent part of the abscess fixed; with the right hand, a narrow bistoury is passed down to this spot. At the moment of puncturing the abscess, the epiglottis is closed by sinking the left index finger. The incision is rapidly enlarged downwards, the knife removed, and, at the same moment, the head bent forwards to allow the pus to escape through the nose and mouth. Immediate injection of luke-warm water into the mouth and nose favors the emptying of the abscess, as does, also, the act of vomiting, which invariably follows. The operation must, naturally, be very rapidly performed, and when the incision has been made sufficiently large, no necessity ever arises for a second operation, except where an external incision must be also made. If, on the following day, the opening shall have closed, this can be remedied by pressure upon the abscess

with the finger introduced into the pharynx, or by a sound pushed along the finger. The sense of touch suffices perfectly for performing this operation effectually. In one case, where the author attempted to watch the operation with his eyes, the tongue suddenly slipped by the finger, which was pressing it down and too much to one side, in order to get a better view, and was severely wounded by the bistoury. Dr. Schmitz always uses a guarded bistoury, invented by himself. The use of the trochar, as recommended by Abelin, the author does not approve, and the use of anæsthetics is condemned as unnecessary and dangerous.

With regard to opening the abscess externally, this is only to be recommended when there is fluctuation superficially. To avoid wounding a large vessel, the best place for the incision would be the posterior border of the sterno-cleido-mastoid muscle. To insure the escape of pus, the insertion of a drainage tube and daily syringing are generally necessary.

Morbus Bullosus Neonatorum.

Ahlfeld observed, in the lying-in hospital at Leipzig (*Schmidt's Jahrbücher*, No. 3, 1873), an epidemic offering the following interesting details. The number affected increased gradually, until, finally, at the time of its acme, no new-born escaped. The disease made its appearance between the second and fourteenth day (average, fourth day). The temperature never showed any increase attributable to the eruption. The blisters made their appearance suddenly, at first upon the neck and sides, extending thence to the scalp, face and abdomen. The duration of the time between the first and last vesicles varied; they increased rapidly in size. The palms of the hands and soles of the feet escaped, invariably. In three cases, three-fourths of the whole body was occupied by the eruption. The general health was unaffected. In many of the cases, there was ophthalmia, probably due to the escape of the contents of the vesicles into the eye. There were similar epidemics in the neighboring villages. The author regards the disease as contagious, and considers it important to examine the contents of the vesicles. He is opposed to calling the disease pemphigus, because by that we understand a constitutional disease, with cachexia. After their discharge from the hospital, several of the children died of new eruptions, perhaps owing to the unfavorable conditions into which they entered. Three died in the hospital, of furunculosis, and two of inflammatory affections of the navel, set up by the action of the contents of the vesicles.

In a case of the same affection, reported by Jules Simon (*L'Union Médicale*, 1873, No. 10), the eruption made its appearance in a strong, healthy child, of non-syphilitic parents, on the ninth day after birth, the inguinal region and left side of the head being the seat of the eruption, preceded by a short indisposition. The blisters were the size of half a franc, with contents clear, and surrounding skin hyperæmic. The blisters, after being emptied, had a red base. The nasal cavity, region of the anus, palms of the hands and soles of the feet were intact, and, consequently, syphilitic and scrofulous pemphigus were excluded. The child recovered, and, although this happened at the time when benignant pemphigus generally gets well, the author thinks the last treatment, consisting of alum lotions and procuring a wet-nurse, had a good deal to do with the cure.

On Retention of Urine in Children.

At the meeting of the Medical Society of Vienna, held June 25th, 1873 (*Allgemeine Medizinische Central Zeitung*, August 2d, 1873), Dr. Englisch spoke of the disturbances caused by retention of urine in children. One of the most frequent causes of this retention is the distention of the sinus pocularis with collections of mucus. When this is moderate, there is only impediment to micturition; when it is very great, then follow irritation and inflammation of the walls of the sinus, extending to neighboring parts, first to the connective tissue between the rectum and prostate, producing strong adhesions, and then to the posterior wall of the bladder. As the ductus ejaculatorius and vas deferens are affected by this obstruction, the inflammation extends along the latter to the testicle, causing acute hydrocele or epididymitis. A further result is the inflammation of the subperitoneal cellular tissue of those parts covered with peritoneum, and, later, of the peritoneum itself. The author's experience with such cases has been large. In one case of distention, affecting particularly the left ureter with acute pyelitis and nephritis, the surrounding cellular tissue was inflamed; in another case, the inflammation was confined to the neighborhood of the bladder, and, finally, in other cases, general peritonitis was found. Dilatation of the urinary passages in children, it is thus shown, is very prone to set up an inflammation of the surrounding cellular tissue and of the peritoneum itself, the original trouble being concealed. Another result of the retention merits notice. Owing to the small size of the pelvis in children, a slight distention of the bladder will fill it and compress the rectum. As a result of this, we have obstruction of the bowels, with vomiting, the latter sometimes stercoraceous. In a preparation exhibited, the rectum was compressed and flattened and adherent to the walls of the bladder; the sigmoid flexure was dilated. Peritonitis can result also from obstruction of the bowels thus produced. Many cases of ileus in new-borns can be traced to this cause, the symptoms of ileus being more prominent than those of the retention of urine. The vomiting can be a symptom of uræmia, caused by the retention of urine. Such was the case with a boy two and a half years old; there was vomiting, which, on one day, was of stercoraceous character; after the distended bladder was emptied, there was an operation of the bowels and the vomiting stopped. The vomiting, however, returned, and the patient died with symptoms of uræmia. Vomiting, with a moderately distended bladder, must be looked upon as a most important symptom. In another preparation shown, the retention was due to an enlarged prostate in a child eight to fourteen days old, being the size usually found in a child two or three years old. All these appearances connected with retention of urine are better studied in new-born female subjects, the relations of the urinary passages being simpler.

[To be concluded.]

Vienna is now supplied with clear spring water, at a temp. of 50° F., brought from the heights of the Sœmmering, a distance of about seventy miles.

Bibliographical Notices.

Proceedings of the Nebraska State Medical Society. 1873.

With very much pleasure we have looked over this document. The fifth annual session was at Nebraska City, in June last. The number of members present was small, of course. The typographical execution of their record is not such that many faults may not be found in the spelling of professional words. It is to be remembered, however, that the writers of reports, in that region, have not the same easy access to the printer that we have.

Some of the cases reported are particularly interesting, and show a determination on the part of the reporters to do their part to sustain the objects of the Society. Dr. Peabody, of Omaha, gives nine cases of metro-peritonitis, four of which recovered. His success was surely above the average. There is an interesting case of puerperal convulsions, by Dr. Tilden, of Omaha, in which the treatment seems to us rather severe, unless it be by misprint that three ounces of fluid extract of ergot seem to have been taken. The patient, after recovery, had no recollection of events for three weeks prior to the attack. A fatal case of ovariotomy is reported by Dr. Coffman, of Omaha. It was evidently an unfavorable case, the operation being simply a last chance.

Several pages are occupied with a valuable meteorological report, by Henry Barton, of the U. S. A. Signal Service, showing that, by the cautionary signals, the number of disasters upon the great lakes, which had increased, in the ten years preceding 1870, from 377 to 971, and which, in 1869, numbered 1002, diminished to 314 in 1872.

The following is a list of officers for the current year:—

President—H. P. Mathewson, Omaha.
First Vice President—D. W. Hershey, Nebraska City.
Second Vice President—F. G. Fuller, Lincoln.
Corresponding Secretary—R. R. Livingston, Plattsmouth.
Recording Secretary—S. D. Mercer, Omaha.
Treasurer—James H. Peabody, Omaha. C. E. B.

BOOKS AND PAMPHLETS RECEIVED.

A Universal Formulary, containing the Methods of Preparing and Administering Officinal and other Medicines, the whole adapted to Physicians and Pharmaceutists. By R. Eglesfeld Griffith, M.D. Third Edition. Carefully Revised and much Enlarged by John M. Maisch, Phar. D., Professor of Materia Medica in the Philadelphia College of Pharmacy. With Illustrations. Philadelphia: Henry C. Lea. 1874. Pp. 779.

Diseases of the Chest. By A. T. H. Waters, M.D. Second Edition. Revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1874. Pp. 431. (For sale by J. Campbell & Son.)

The Anatomist's Vade-Mecum. By Erasmus Wilson, F.R.S. Edited by George Buchanan, A.M., M.D. Ninth Edition. Philadelphia: Lindsay & Blakiston. 1874. Pp. 743. (For sale by James Campbell & Son.)

Vermont Medical Journal. Issued bi-monthly. Burlington: J. M. Currier, M.D., Editor and Publisher. Pp. 46.

Boston Medical and Surgical Journal.

Boston: Thursday, February 5, 1874.

The annual report of the President of Harvard College has become, in these days of prosperity and progress of the University, a document of ever increasing interest. The various improvements carried out during the past year, the bright prospects for the future and the noble manner in which the sons and friends of Harvard responded to her call for help to repair the losses by the great fire, cannot but be most gratifying to all those who have the welfare of Harvard at heart. The various departments are all reaping the benefits of this new vigor, and foremost among them stands the medical school, with its new system of education fairly launched and tested by three years of experience.

A certain number of students who entered under the old system have, up to the present time, been allowed to graduate under the rules of that system. This number has, however, been constantly diminishing, and degrees will be given on the old plan for the last time at the close of the term now nearly completed. Notwithstanding that the reduction in the number of students was at first very great, the reduction in the proportion of receipts has been very trifling. The number of students and the receipts from tuition fees during the present year show, already, a very satisfactory increase, making it altogether probable that the account of the present year will be quite as favorable as that of the last year of the old plan, thus demonstrating fully the success of the new undertaking. The President, however, well says that the success of these changes "is not to be measured by any pecuniary standard; it is to be found in the improved quality of the student, in the higher spirit which animates the school, in the proved attainments of those who receive its degree, and in the elevation of the profession, which cannot but result from a sustained improvement in the discipline of the young men who annually recruit it."

In reviewing the testimony and verdict given in the case of death from chloroform which lately occurred in this city, *The Medical Press and Circular* (London) says:—"Here is a verdict, supported by an amount of medical skilled evidence which must carry with it conviction to our medical brethren at this side, and the issue might be serious were it proved that the patient, as in this case, asked for ether and got otherwise. We must commend the whole question to our readers and the profession as assuming an aspect which conscientiously and calmly they must discuss."

At the last regular meeting of the Boston Society for Medical Improvement, the following resolutions were unanimously passed:—

Resolved, That the Boston Society for Medical Improvement is of the opinion that the position of the medical officers of the United States Army ought to be amended by the accordance of relative rank equal to that of any other staff corps of either the Army or the Navy, and by the repeal of the law which now prohibits both promotions and appointments.

Resolved, That the foregoing vote be published in the Boston Medical and Surgical Journal.

We hope these resolutions will be endorsed by all other New England Societies, that the efforts for the repeal of this unjust law, now shortly to be brought to the attention of Congress, may receive the hearty support of the profession in this part of the country.

We admire the unprejudiced kindness of heart which induces certain of the members of the Massachusetts Medical Society to allow their names to be so blandly mixed in with those of notorious quacks, as puffers of pepsine, although we cannot but hope that many of these names are used without authority. In one instance, at least, we know this to be the case. All educated physicians should refuse their signatures in favor of any proprietary medicine.

Solubility of Iodoform in Ether.—Dr. Gubler *(Journal de Pharmacie et de Chimie)* employs the ethereal tincture of iodoform for external application. From the rapid volatility of the solvent, that substance is left in a state of extreme tenuity, and covers the surface in a uniform manner. The solubility was carefully determined, and the following formula is the result:—

Crystallized iodoform . .	1 gramme;
Ether	4 grammes.

—*Medical Press and Circular.*

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, January 24, 1874.)

Operations were performed in the following cases:—Sinuses of Foot, Fatty Tumor of Thigh, Dislocation at Shoulder-joint, Polypus Nasi, Tumor of Back, Cicatrix of Cheek, Partial Loss of Nose, Fistula in Ano, Sinus of Toe. During the week, Epithelioma of Nose, Gun-shot Wound of Chest.

Sinuses of Foot—from a wound with an adze on the instep. Abscess and fistulous openings followed. Laid open by Dr. Hodges.

Fatty Tumor—on the thigh of a woman, sixty-three years of age, of seven months' growth, two inches in diameter, tender and fluctuating to the touch; the skin covering it was of a deep purplish red. Dr. Cabot excised the tumor. It was adherent to the skin, and had been the seat of an active inflammation.

Dislocation at Shoulder-joint—of six months' standing, in a man twenty-two years old. The limb was useless, and the shoulder presented the usual characteristics of subcoracoidal dislocation. To fix the scapula, Dr. Cabot applied long strips of adhesive plaster around the chest and over the shoulder, as described in a previous report. He then rotated and circumducted the arm, to break up adhesions. Horizontal extension was made with the arm at right angles to the body, counter-extension being maintained by a folded sheet carried around the arm and crossed on top of the shoulder. The elbow was then suddenly brought down to the side, and an attempt made to pry the bone into place over a fulcrum placed in the axilla. This not succeeding, extension was again employed, and, on the second attempt, the head of the bone entered the socket, and was retained in place by a swathe carried around the chest, fastening the elbow to the side.

Polypus Nasi—removed by Dr. Hodges, through a speculum nasi.

Tumor of Back—in a man twenty years old. Last July, he fell, and struck midway between the great trochanter and crest of the ilium; this was followed by a little lameness. In September, the lameness increased, and a tumor appeared just below the crest of the ilium, which has gradually enlarged, and, during the past week, been attended with pain in the course of the sciatic nerve. It is now an oval, hard, deeply seated swelling, three inches broad by four in length, fluctuating in the centre. There is also an induration, occupying the greater part of the iliac fossa of that side. Dr. Cabot punctured the tumor on the posterior surface of the ilium with the trocar of an aspirator; a small quantity of blood came through the canula. A portion of the tumor was also obtained, which, under the microscope, proved to be sarcomatous tissue.

Cicatrix of Cheek—in a girl, sixteen years old, the result of a lacerated wound by the horn of a cow, some years since. The disfigurement was considerable. Dr. Hodges excised the cicatrix, and united the remaining wound by fine sutures; so that a linear cicatrix might replace the broad scar. Dr. Hodges said the number of stitches might seem unnecessarily large, but he should remove every other one on the following day, their object being merely to hold the edges of the wound accurately adjusted during the first few hours, and only until the reparative process should begin.

Partial Loss of Nose—from lupus, in a boy of seventeen. The disease had destroyed the soft parts of the nose, from its root nearly to its tip, leaving an opening, just below the bridge, into the nasal fossæ. Dr. Cabot pared the edges of the old cicatrix, and covered the orifice by a flap turned down from the forehead, stitching it to the edge of the wound just made.

Fistulæ in Ano—in a man; three openings connected with a superficial sinus. Laid open by Dr. Cabot.

Sinus of Toe—following an old amputation for caries. The sinus was excised by Dr. Cabot.

Epithelial Ulcer of Nose—in a man fifty-five years of age. It was as large as a dime, and situated on one side of the bridge of the nose. It began four years ago, and was attributed to wearing eye-glasses with a spring, which nipped and rested on the bridge of the nose. Dr. Hodges excised the disease, and turned down a flap of integument from between the eyebrows to cover the remaining wound. The wound in the forehead came together without tension. Fine sutures were used, and, in taking the stitches, the needle was allowed to take up the smallest possible amount of the transplanted tissue, so that the circulation around its edges should be interfered with in the least degree consistent with holding it in position.

Carious Rib—in a man, following a gun-shot wound during the late war. Dr. Hodges made a T-incision over the ninth rib, and extracted a thin scale of bone, contained in a cavity formed by the large amount of new bone thrown out in repair. Access to this cavity was obtained by enlarging the existing orifice with the spherical rasp.

The following error in the report of last week is indicated by the direc-

tion of Dr. Cabot:—*Tumor of Neck* ; omit " considered it a form of ranula," and substitute—" said that its appearance suggested ranula, but its history and contents were conclusive as to its cystic character."

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE more interesting of the surgical operations last Friday, January 30th, were as follows:—

Dr. Cheever showed a case of Traumatic Stricture of the Urethra in a boy of fifteen years. Two months ago, the patient fell, striking on his perineum and rupturing the urethra. When he entered the hospital, forty-eight hours after the injury, the bladder was distended, the penis, scrotum, perineum and adjacent parts were œdematous, and sloughs were forming about the edges of the wound in the perineum. It became necessary to perform perineal section to evacuate the distended bladder, and to relieve the external parts of the extravasated urine. A quart of urine came away when the passage to the bladder was complete. A catheter was passed into the bladder, and retained in place twenty-four hours; from that time to the present, no instrument was passed. The urine, during the month succeeding the operation, passed entirely through the perineal wound, the posterior wall of the urethra, at the seat of injury, having sloughed to the extent of nearly an inch. No retention ever occurred after the operation. At the end of a month, urine began to pass spontaneously by the urethra, and the natural micturition has progressively been restored until at present, the perineal wound being healed, it is quite normal.

The case was presented now for the purpose of exploring the urethra to ascertain by bougies, under ether, the extent of the stricture and the prognosis. Dr. Cheever passed probe-pointed bougies (Nos. 4 and 5 of the English scale) into the bladder, the instrument being, in each case, quite tightly grasped by the stricture.

Dr. Cheever said that the patient, although fortunate in so good a recovery, would always be the subject of a traumatic stricture, which would require constant vigilance; neglected, it would end in a perineal abscess and fistula. The urethra would be submitted to gradual dilatation while the patient remained in the hospital, and directions would be given to pass a bougie occasionally after his discharge.

Dr. Cheever remarked that, in this case, nature, unassisted, had restored the canal of the urethra. The method of Syme, of passing and retaining a catheter after operations on the urethra, was open to question as to its real benefit. It appeared to be falling into disfavor. Dr. Cheever had himself seen cases where recovery seemed to be retarded rather than aided.

Dr. Thorndike operated in a case of Traumatic Aneurism of the Femoral Artery. The patient was a young man, twenty years old. Fourteen weeks ago, he received a pistol-shot wound in the left thigh, the ball entering on the outer and posterior aspect of the middle third, and passing obliquely downwards, inwards and forwards to emerge four inches above the knee. Two days after the injury, the thigh swelled to twice its usual size; but the swelling subsided under the influence of rest.

A week ago, the patient entered the hospital. The thigh was then one third larger than its fellow. During the week, the swelling and attendant pain had increased, and now there was a symmetrical tumor on the inside of the thigh, in the middle third, with an oval outline and obscure fluctuation. Careful examination revealed no bruit, thrill or murmur in the tumor. The temperature of the two limbs remained the same.

To determine the hitherto undecided diagnosis, the tumor was punctured with Dieulafoy's aspirator needle. A small quantity of thin, bloody fluid followed the puncture. The swelling was now freely laid open by an incision eight inches long, the hæmorrhage being controlled by an elastic tourniquet. The incision exposed a great mass of coagulum; this being turned

out of the wound, there was found lying on the femoral artery, just as it entered Hunter's canal to pass from the front to the back of the thigh, a ruptured aneurismal sac, displaying well-defined layers. This being removed, the wall of the artery was found open on its lower and inner aspect, the opening being a third of an inch long and a sixteenth of an inch broad. The artery having been separated from its sheath, a ligature was applied on each side of the aneurismal opening.

Dr. Thorndike said that the sequence of symptoms was now quite plain. The bullet grazed, without rupturing, the artery. This was followed, in two days, by sloughing of the arterial wall and the formation of an aneurism. The aneurismal sac, in turn, gave way, in consequence, possibly, of some over-exertion, and a diffused aneurism resulted.

Other cases, not reported in detail, were Tenotomy of the Tendo-Achillis, in an adult, to relieve contraction following a compound fracture of the ankle; Suppurating Bubo, freely incised; Onychia of ring finger, in a child, treated by removal of the nail and of the matrix.

On Tuesday, January 27th, Dr. Cheever performed an operation for an angular deformity, the result of a Fracture of both bones of the Forearm. The patient, a young man, broke his forearm eleven weeks ago. He was treated by a "natural bone-setter," and the result was a firm union, with considerable deformity. The bones were now quite crooked, the ulna and radius bending outwards at their middle, and, worst of all, the bones being connected across in such a way that the radius could not move separately from the ulna, and the power of rotation and supination was almost wholly lost. It was to remedy especially the latter difficulty that Dr. Cheever proposed to re-fracture the arm. The patient was etherized, and the union broken up by breaking the forearm over the surgeon's knee. Supination and pronation were restored, and the arm made straight. It was fastened between splints so padded as to press upon the salient angles of the fractured bones. Dr. Cheever stated he had no doubt union in a straight position would now take place. The part of the after treatment requiring care would be in keeping up rotation of the radius. To accomplish this, he proposed to remove the splint after ten days, and use passive motion. The splints would then be re-applied and removed daily, or on alternate days, according to the indications of union in the broken ends and the mobility in rotation.

F. W. DRAPER.

Correspondence.

YELLOW FEVER OF 1873, IN SHREVEPORT, LA.

[Concluded from p. 74.]

NEW ORLEANS, December 26th, 1873.

MESSRS. EDITORS,—In my letter of the 24th inst., I endeavored to give a general outline of the history of the recent epidemic of yellow fever in Shreveport; in the present communication, I shall endeavor to present the relations of the mortality to the temperature, and also the various hypotheses which have been suggested as to its mode of origin. According to the U. S. Census of 1870, the total population of Shreveport is given at 4,607, classified as follows:—Native, 3,982; foreign, 625; whites, 2,439; colored, 2,168. It will be seen, from my letter of the 24th inst., that the estimates emanating from the papers of the city differ widely from the figures of the U. S. Census. The population of Shreveport, after the exodus of the temporary residents, and of those citizens who were able to leave, did not probably exceed 4,000, and of this number at least one half were colored. Only 120 deaths occurred amongst the blacks, while 639 whites fell victims; the mortality was therefore nearly six times as great amongst the whites. The disease is said to have assumed a milder type in the colored race, although, as shown by the large mortality, they were not exempt. The following table

presents the daily mortality and the temperature of the atmosphere at 10, P.M., which may be assumed as the average temperature of the twenty-four hours.

Date.	Deaths in 24 hours.	Temp. of Atmos. 10, P.M., Fahr.	Date.	Deaths in 24 hours.	Temp. of Atmos. 10, P.M., Fahr.
1873.			1873.		
August 20	2	72	October 2	12	69
21	1	77	3	17	75
22	4	50	4	8	79
23	0	76	5	15	77
24	2	83	6	17	60
25	2	83	7	5	53
26	1	75	8	13	60
27	3	82	9	10	68
28	4	77	10	4	69
29	4	80	11	6	72
30	2	82	12	10	64
31	4	81	13	8	61
September 1	6	81	14	7	64
2	5	84	15	14	72
3	5	81	16	6	73
4	2	81	17	8	75
5	1	84	18	3	57
6	6	81	19	7	48
7	8	79	20	5	56
8	11	71	21	3	63
9	16	78	22	4	48
10	10	78	23	8	45
11	18	77	24	3	48
12	18	76	25	2	52
13	26	67	26	4	55
14	26	63	27	5	53
15	33	67	28	4	37
16	25	67	29	2	44
17	13	71	30	4	52
18	23	76	31	4	46
19	17	71	November 1	1	56
20	17	66	2	0	57
21	16	69	3	2	54
22	18	68	4	1	53
23	11	66	5	1	68
24	13	73	6	2	68
25	19	75	7	0	56
26	15	74	8	2	56
27	22	74	9	0	56
28	15	74	10	1	62
29	9	67	11		
30	8	63	12		
October 1	8	66	13		

The greatest mortality occurred between the ages of twenty and thirty years, and the next greatest from thirty to forty, that period of life in which the human system is supposed to have the greatest capacity to resist disease.

Nature of the Epidemic.

The fever presented the characteristic symptoms of specific yellow fever. It was not relatively more malignant than the yellow fever which has prevailed to a limited extent in New Orleans during the present and two preceding years. Both in New Orleans and Shreveport, the fever has been characterized by albuminous urine, urinary suppression, jaundice and black vomit. The urinary suppression has been an almost universally fatal symptom. Drs. Bruns, Choppin and Davidson, in their report to the Howard Association of New Orleans, affirm that "the disease was yellow fever; the *fièvre jaune* of the French West Indies, the *vomito prieto* of the Spanish, the better named *hæmogastric* pestilence of Copland. . . . . Hæmorrhages from the mucous surfaces were rare, black vomit in fatal cases less common than

usual, and the recoveries after it more numerous. The special determination of the poison was to the kidneys, the large majority dying with suppression of urine, and albuminuria, speedily followed by uræmia, showing itself at an unprecedentedly early period after the invasion of the fever."

From the valuable "Report on Epidemic Cholera and Yellow Fever, in the United States Army during 1867, Circular No. 1, War Department, Surgeon-General's Office," we gather that, in 1867, yellow fever made its appearance in Shreveport about the 24th of August. "There were about 1,300 cases and about 134 deaths; the last case occurred about the last of December, 1867. There were no cases in this camp among the troops, on account of the healthy location of the same, the cleanliness of the camp and men, good water and diet; also, the communication between the camp and the city was discontinued, and the men had no access whatever to the town during the epidemic." It is evident, from these statistics, that the epidemic of 1873 was of a more fatal type than that of 1867.

As far as my knowledge extends, no details of *post-mortem* examinations have been made public by the physicians of Shreveport.

Causes of the Epidemic of Yellow Fever of 1873 *in Shreveport, La.*

The following hypotheses have been advanced, in attempting to account for the appearance of yellow fever in Shreveport:—

1. The disease originated in Shreveport, *de novo*.

Those who adopt this view sustain their position by the conceded filthy condition of the city, before and at the time of the appearance of the fever. A steamboat, in August, sunk just below the city, and hundreds of Texas cattle, with which it was loaded, were drowned. The negroes afterwards pulled them out upon the bank and skinned them; the hides were appropriated, but the carcasses were left to decay in the hot sun. It is supposed by some that this cause may have conspired with the filthy condition of the city to develop the fearful scourge.

2. The removal of the Red River raft.

The removal of the great raft of the Red River, extending from a point fifty miles above Shreveport to the Arkansas State line, has been regarded by some as the cause of the yellow fever. Sixty years ago, the raft extended along Red River for one hundred miles, and formed a serious obstruction to navigation. Logs, stumps, roots and snags of all kinds were caught in the entanglement, which became more solid every year with accumulated materials. A deposit of mud gathered on this enormous floating island, whose breadth in many places covered the river from shore to shore, until sufficient soil was accumulated to afford a support for willows and cottonwoods a foot in diameter. The only navigation possible was through the little channels around the raft, but they were available only during the high water. The government engineers, for many years, worked at the raft with snag-boats, blasting powder and saws. In 1854, the raft was reduced to twelve miles, but from that time the obstruction increased, owing to the interruption of the work upon it. Lieutenant Woodruff's plan was adopted last year, by the United States government, and that officer worked with great success, and had nearly completed the destruction of the raft, when he fell a victim to the yellow fever, contracted during his generous and noble devotion to the sick of Shreveport. It has been suggested that the release of a vast quantity of decayed vegetable matter from its imprisonment, and its sudden exposure to the sun, contributed largely to the plague which desolated Shreveport. On the other hand, it has been urged that no case of yellow fever occurred amongst the large number of men working on the raft, and only those were attacked who visited Shreveport during the prevalence of the fever.

3. Importation from Mexico by the Trans-Atlantic Circus.

The Shreveport *Times* of the 3d of October, in an article on the opinion entertained then, that the pestilence affecting Shreveport had been brought there from Mexico by the Trans-Atlantic Circus, says that the company broke up after its arrival in Shreveport, and the trunks, clothes, tents, animals, &c., were left in the heart of the city. The editor goes on to say:—"The disease

which is so rapid its course, and fatal in its results, is pronounced by some to be a malignant type of yellow fever, peculiar to Vera Cruz and that portion of Mexico. It is alleged that a number of the attachés of the Trans-Atlantic belonged to a circus that had recently been in that region; and it is regarded as remarkable that a circus with the splendid paraphernalia and valuable properties as this one, and belonging to so influential a capitalist as P. T. Barnum, should have broken up here for want of money; it is affirmed that men connected with it abandoned it as an infected show, and not from pecuniary considerations, and it is stated with confidence that while the circus was exhibiting to our people, there was a case of the present fever in one of the side shows. Confirmatory of all this, and of far more consequence, is the statement of Dr. Jos. Moore, in relation to the attachés of the Trans-Atlantic, who left here at the time he did on the *Lady Lee* for St. Louis. The boat, Dr. Moore informs us, had not been out twenty-four hours when a malignant fever, resembling the one with which we are now afflicted, broke out among the circus people, and all of them were taken with it. The Doctor's whole time, during the trip, was occupied in attending these men, who, from the fact of their previous acclimation, escaped the usual fatal results of the disease."

On the other hand, it has been urged that the members of the circus really contracted the disease in Shreveport.

4. Importation of the yellow fever into Shreveport from New Orleans.

As I have shown, in my previous letters, yellow fever appeared in New Orleans as early as the middle of July, and prevailed in that portion of the city contiguous to the landing and track of the Mississippi Steamboats.

The following is the testimony of Drs. Bruns, Choppin and Davidson, in the report to which we have already referred: "The details of the origination have not yet been made out. This subject is in the hands of an able committee, appointed by the Medical Society of Shreveport, and will doubtless be satisfactorily dealt with by them. This much is certain, that the removal of the obstructions known as the Red River raft had nothing to do with the epidemic of yellow fever; nor was it brought by the International Circus Company, which came from Kansas, via Dallas and Houston, touched no infected point, left no trail of disease of any sort whatever, and had not a member of the troup sick on its arrival. We are confident, ourselves, that the fever was carried from New Orleans, by one or more of the Red River line of steamboats, through goods and persons. The evidence already accumulated points clearly to this avenue; but the investigation is much embarrassed by the natural reluctance on the part of officers and owners of boats to admit that they were the unfortunate, if ignorant and innocent agents, in the dissemination of a disease which has wrought such dreadful calamity.

Dissemination of Yellow Fever to various Points in the Interior.

According to Dr. O. P. Gahagan, "the yellow fever was caused at Brownsville by the steamer *Lotus*, No. 3, on her down trip in September. She first landed at George Gallaspie's place, three miles above Brownsville, to discharge some salt. The captain invited Gallaspie to come aboard and take a drink, which he did. At this time, there were several cases of yellow fever on the boat; he contracted the disease, and died. The boat then made her next landing at Brownsville. T. D. Brown and his half-brother went aboard; his half-brother, Joseph Brown, took the disease first; his father, Daniel Brown, next. The disease then assumed the form of an epidemic.

The yellow fever was evidently carried to Marshall and Calvert, Texas, and other points in the interior. Pensacola is supposed to have been the point from which the disease was carried to Bainbridge, Georgia, and Pollard and Montgomery, Alabama.

With this letter, I close the general outline of the epidemics of the Mississippi Valley during the year 1873. By reference to my former letters, it will be seen that this region has been visited by cerebro-spinal meningitis, cholera, dengue and yellow fever.

Respectfully, JOSEPH JONES, M.D.

Medical Miscellany.

TWO FATAL CASES OF PYÆMIA following the extraction of teeth have recently been reported by Dr. Langi.

DR. FRANCIS W. WEBB, Editor of the *Medical Times and Gazette* (of London) died suddenly, on the morning of December 24th last, at the age of 47 years.—*Nature.*

THE AMERICAN MEDICAL ASSOCIATION will convene next at Detroit, on the first Tuesday in June. The Association held its annual meeting once before in that city, in 1856.

THE HASTINGS GOLD MEDAL of the British Medical Association, value twenty guineas, will be given this year for the best essay on the "Action of Alcohol in Health and Disease," and the award will be made at the annual meeting of the Association.

DOUBLE URETER.—At a recent meeting of the Pathological Society of Dublin, Dr. W. G. Smith exhibited an instance of the above rare occurrence, removed from the body of a dissecting-room subject. The double ureter was on the right side; the left kidney and its ureter were normal.—*Irish Hospital Gazette*, Jan. 15, 1874.

FOR SCABIES.—The following formula is praised:—℞. Styracis liq., flor. sulph., cret. alb., aa. ℥ss.; saponis viridis, axungiæ porci, aa. ℥i. M. This mixture is to be rubbed into the entire surface of the skin for three successive nights, especial attention being given to the gluteal region, penis, thighs and hands. Upon the morning of the fourth day, a bath is to be taken.

EASY MISCARRIAGE.—"At a ball at court, a child was dropped by one of the ladies, but nobody knew who, it being taken up by somebody in their handkercher. The next morning, all the ladies of honor appeared early at court for their vindication, so that nobody could tell whose this mischance should be. But it seems Mrs. Wells fell sick that afternoon."—*Pepys's Diary*, vol. i. p. 381.

THE late Marquis d' Ourche, one of whose friends was buried alive, left a sum of 20.000 francs to the French Academy of Medicine, to be given to the inventor of a simple process of proving that death has really occurred, and a further sum of 5.000 francs, to be awarded to the discoverer of a scientific method of verifying death. Altogether, one hundred and two essays were sent in for adjudication, upon the merits of which Dr. Devergie reports in a French contemporary. Most of the papers contained such absurd suggestions that the list was practically limited to thirty-two competitors. The larger prize was not awarded, but the 5.000 francs was divided between four writers. We cannot say that any facts have been elucidated by these investigations likely to enlarge the domain of forensic medicine.—*Lancet*, Dec. 27, 1873.

DEATH FROM INHALATION OF THE PRODUCTS OF COMBUSTION IN AN OPEN FIREPLACE WITH A CHIMNEY.—A man and his wife, both strong and healthy, went to bed in a room in the fireplace of which a fire had been lighted shortly previous. During the night, the woman awoke with symptoms of suffocation, arose, but staggered about and fell to the floor. The husband rose to aid her; tried to light the gas, and failed, but likewise fell to the floor unconscious. When discovered in the morning, the man was dead, while the woman was so far gone that she was with difficulty resuscitated. The theory with regard to the death was, that the night being a very stormy one, and the fire small, the wind, blowing sharp and steady over a low chimney, acted as a damper, and effectually prevented the gases from making their escape by the way provided for them.—*Edinburgh Medical Journal*, January, 1874.

ABORTIVE METHOD OF TREATMENT OF CORYZA.—J. S. Prout, M.D. (*New York Medical Record*, Jan. 1, 1874) recommends the tincture of the chloride of iron for this purpose. He states that he has often been able to arrest the disease in his own case, and in that of his patients, by the exhibition of twenty to thirty minims of the tinctura ferri chloridi, as soon as possible after the cold is "caught." He usually finds that, in about half an hour, there is a decided amelioration of the symptoms, and in case the improvement is permanent he gives no more, but if it does not pass off in two or three hours, he repeats the dose, if necessary, three or four times. A convenient form for prescription is:—℞. Tinct. ferri chloridi, glycerin., aa., ℥iv. M. S. One teaspoonful in a wineglassful of water.

NOTES AND QUERIES.

ABBREVIATIONS.

To quote Latin, Greek, Hebrew, or any other foreign or dead language in writing for the information of farmers or mechanics would be considered rather out of place. No more so than for an aurist or oculist to use his special abbreviations, when writing for a magazine intended for general practitioners.

That was a very interesting article in the JOURNAL of January 22d, on Mastoid Inflammations; but please tell us how to translate "W. l. on contact," "W. l. ¾'," "V. l. 10'," "W. l. 3''." By doing so, you will give information to a set of ignoramuses, perhaps, of whom I am ONE.

There was a young Doctor, a sinner,
Who always was late to his dinner;
When they said, "You are late,"
He replied, "That is fate,"
This provoking young Doctor, the sinner.

And the rhyme was all the Doctor had for dinner.

[Anonymous contribution, probably from the pen of a long-suffering Doctor's wife.—EDITORS.]

MESSRS. EDITORS,—Your correction of "an error in quotation," in the JOURNAL of the 15th inst., has just caught my eye. It seems to me that you are hardly explicit enough in saying "the simile was applied at the time of the musical jubilee in Boston in 1869." This leaves it to be inferred, at least, that you suppose it was first used at that time. It may be found in editions of Dr. Holmes's poems published long before that. It occurs in "The Music Grinders," which, I believe, is one of his earliest poems. The verse from which it is taken (the italics are mine) is as follows:—

"But hark! the air again is still,
The music all is ground,
And silence, like a poultice, comes,
To heal the blows of sound;
It cannot be, it is, it is,
A hat is going round!"

KRINO.

January 27, 1874.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending January* 24, 1874.

Boston, 140; Worcester, 8; Lowell, 20; Chelsea, 6; Cambridge, 9; Salem, 7; Lawrence, 11; Springfield, 7; Gloucester, 3; Fitchburg, 6; Taunton, 11; Newburyport, 6; Somerville, 6; Fall River, 26; Haverhill, 5; Holyoke, 3; Pittsfield, 5. Total, 279.

Prevalent Diseases.—Consumption, 43; pneumonia, 25; scarlet fever, 23.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 31st, 136. Males, 74; females, 62. Accident, 3; apoplexy, 5; inflammation of the bowels, 1; disease of the bowels, 1; bronchitis, 6; congestion of the brain, 1; disease of the brain, 6; burned, 1; cancer, 1; consumption, 28; convulsions, 3; croup, 1; debility, 1; dropsy, 2; dropsy of the brain, 1; diphtheria, 2; erysipelas, 2; scarlet fever, 9; typhoid fever, 4; disease of the heart, 5; hæmorrhage, 1; indigestion, 1; intemperance, 2; disease of the kidneys, 2; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 15; marasmus, 4; old age, 6; premature birth, 2; puerperal disease, 3; peritonitis, 2; pyæmia, 1; rheumatism, 1; syphilis, 1; tabes mesenterica, 1; whooping cough, 1; unknown, 5.

Under 5 years of age, 39; between 5 and 20 years, 16; between 20 and 40 years, 40; between 40 and 60 years, 21; over 60 years, 20. Born in the United States, 86; Ireland, 40; other places, 10.

THE

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Original Communications.

A CASE OF CEREBRAL EXHAUSTION.

By David Mack, M.D.

While practising in Springfield, Mass., I was called, on the 2d of September, 1872, to see an unmarried lady, aged about 24 years, living in comfortable circumstances with her parents. She had been ill for about two years; had been treated by some seven different physicians without material benefit, and both she and her friends despaired of being helped by medical treatment.

The history of the case, elicited after a rather long cross-questioning, was about as follows: My patient had always had an active mind, and had been ambitious of improving it, but had enjoyed good health until attacked by the whooping cough. This began in the fall, nearly two years before, and continued during the winter, she meanwhile disregarding it as much as possible, and drugging herself to keep down the paroxysms, and continuing to study, and also to assist her father in his accounts. Besides the spending of several hours a day over business affairs, her studying, which, according to her statement, extended to philosophy and other abstruse matters, was conducted when she was already fatigued, and often in the lying posture, and in utter disregard of the needs of her body. Although already become too weak to continue her assistance to her father when I saw her, she had not given up her studying. A cough had remained after the whooping cough; this was persistent, troublesome, and accompanied by much pain in the chest, which latter had been treated as pleuritic. Her strength, appetite and weight had failed, and she had for some time been considered as in consumption, and had taken cod-liver oil, whiskey, &c. &c., together with many narcotics to overcome the persistent wakefulness, which had annoyed her for many months.

Her condition, at my first visit, was as follows: She was up and dressed, but hardly able to walk across the room, owing to weakness, and to the irritable action of her heart, which beat feebly and very irregularly, varying from 120 to 140, and, at times, even to 160 pulsations per minute on exertion. This symptom had given both the patient and her parents and physician much anxiety; it had been much observed and kept a good deal under control by veratrum

viride. She had a sallow paleness of countenance, was emaciated, had considerable dry cough, complained of occasional and fleeting attacks of pleuritic pain; there had been no hæmoptysis. Her hair, which was cut short, was very thin; and on the right side, over the coronal suture, there was an oval, bald place, about two and a half inches long. The scalp appeared healthy, and, to the naked eye, the hair bulbs, also. The general look of the head reminded one of a mangy dog. Her appetite was poor, and she ate very little, but there was no special disturbance of the digestion, no vomiting, &c.; there was no constipation or looseness of the bowels, nor had there been. The tongue was pale and moist. There was none of the hysterical expression of countenance, no history of disappointed affections; there were no "puncta dolorosa" on the head or spine; no uterine irregularities. The urine became muddy on standing. She was noticed to be mentally irritable, and complained of inability to use her mind as she desired, and, as before mentioned, had not slept well for months, although a great variety of narcotics had been used. The pupils were unusually large. Auscultation and percussion had to be attempted without a fair chance to get at the chest; dulness at both apices, together with a harsher respiratory murmur, was recognized, but no râles, gurgling, or other indication of active pulmonary disease. The heart sounds were feeble, but no bruit was detected.

On reflection, it was believed that if the local affection of the lungs had formerly been her chief disease, it was not so now, and that all the disturbance might, and probably did, originate in a marked depression of the activity of the brain and nervous centres generally, hysteria being excluded.

The patient was therefore told that this was the diagnosis; to give up fretting about and noticing the pulse; to give up the symptomatic drugging which had been pursued; to get fresh air daily, on horseback if possible; and not to stay shut up in the house as hitherto for fear of "pleurisy pains;" to rest her mind entirely for a couple of hours, or more, after meals, and not to strain it for some weeks; and to immediately stop any use of the body or mind on the beginning of fatigue. Reading while lying down, and especially at night, was forbidden. Beef, mutton and fish, together with either beer or wine at dinner and other simple and nourishing food were advised. As a nervous stimulant, one-thirtieth of a grain of strychnia, dissolved in fifteen drops of dilute phosphoric acid with water to a drachm, were prescribed, to be taken ten minutes before each meal. As for a soporific, which was very much desired by the patient and seemed really desirable to me, I presumed I could not prescribe any which had not been tried by my seven predecessors, and accordingly gave up the idea of using any drug, trying the following experiment instead: I directed that my patient should retire early; and immediately beforehand should take upon her head and all over her body a

shower-bath of the temperature of the body, taking care to use friction freely all over the body, both before and afterwards, and then to go at once to bed. All other treatment was discontinued.

Sept. 11th.—On making a second visit to-day, I had the satisfaction of finding that all my directions had been attended to in spite of the fears of an over-anxious mother in regard to the bath. The result of the bath had been so marked in producing sound sleep that the mother had awakened her daughter, fearing she might be dying. After the first trial, sound and refreshing sleep had followed its use every night, such as had not been enjoyed for many months. My patient had improved much in appetite and had gained five pounds in weight, and her strength and general condition had advanced also. The bald patch on the head and other parts of the scalp had a decided growth of young hair, which the patient noticed with satisfaction, and which was very evident to me as something new. No local application had been made to the scalp. The "pleurisy pains" had not been very bad, and the pulse gave less trouble, though still rather rapid. Treatment was continued, with the addition of a wash to the scalp containing tincture of nux vomica and tincture of cantharides, as recommended by Tillbury Fox in such cases.

Sept. 23d.—I found to-day that some looseness of the bowels had set in, which had caused the omission of the medicine more or less, and that although the patient had gained about three pounds, she was not feeling as well, yet she had for several days been able to play on the piano again. The hair continued to grow well. The strychnia mixture was omitted; an astringent mixture to check the diarrhœa and a pill of iron and quinine were ordered. The rest of the treatment was continued.

Oct. 8th.—Patient had done moderately well, but had been troubled by the quinine and had not used it much. The diarrhœa had disappeared; pulse and pleuritic pains were less troublesome; the hair continued to grow well. I insisted on the patient sleeping in a cooler chamber and keeping the temperature of the sitting room as low as 76°. I advised her to spend most of her time on the sunny side of the house and the use of sun-baths, which, as direct sunlight was complained of as causing headache, was recommended, to be taken behind violet tinted glass.

The following prescription was left:

℞ Ferri phosph.,
Calcis phosph.,
Calcis carb., aa gr. i.;
Glycerinæ,
Aquæ, aa ʒ ss. M. Take after each meal. Regimen as before.

Nov. 1, 1873.—Having been taken ill myself soon after the last visit, I had not seen my patient until to-day, when she called on me, having learned that I was in town. After my last visit, she used the medicine recommended and improved steadily; when it was used

up, she felt well enough for a while without it, but finally feeling that help was again needed, sent for me; finding that I was away, the bottle was again filled, and again she had been benefited. During the past thirteen months, no other treatment had been followed, she had consulted no physician for her general health, and for the past four months had considered herself perfectly well, had used no medicine and had discontinued horseback exercise. She had a fine ruddy color, had gained in flesh from 95 to 120 pounds, and had a thick growth of hair. No examination of the lungs was made, and as nothing was said about sun-baths they were probably not used.

Exhaustion of brain power is described by Da Costa *; Flint † mentions nervous asthenia; Forbes Winslow ‡ speaks of mental exhaustion; Niemeyer in his text-book § has much to say concerning cerebral anæmia, and the descriptions of all these writers correspond with this case. Dr. F. E. Anstie, as quoted by Dr. E. H. Clarke, ‖ speaks not merely of exhaustion of nervous power, but of secondary irritation of centres like the medulla oblongata. Dr. C. B. Radcliffe ** has said much that is interesting concerning cerebral exhaustion, although he is mistaken in supposing that it had hitherto escaped distinct recognition. He says, after a full description of the various symptoms, of course they are not all present in the same case, and there is an apparent dissimilarity in many cases. Still, for the most part, there can be no insuperable difficulty in the matter of diagnosis. There is always, however, the possibility that the symptoms may mean more than mere cerebral exhaustion. If they pass off quickly, they may indicate nothing more than mere cerebral exhaustion: if they do not, they may indicate a graver state of disease. Forbes Winslow says, †† "this phase of mental and bodily ill health, in the majority of cases, speedily yields to the judicious administration of stimulants and blood tonics, associated with appropriate moral treatment, provided no structural mischief has commenced in the brain. The symptoms are, however, occasionally precursory of formidable attacks of organic disease of the brain." The violent disturbance of the heart, the pleuritic pain and the baldness seem to have been peculiarities of this case. Whether the first was due to exhaustion of the medulla oblongata, or merely to irritation, I am of course unable to say, although I should presume it probable that want of the regulating power over the heart came from exhaustion; the pleuritic pain probably points to irritation of the upper portion of the spinal cord.

The treatment in this case seems to have caused the prompt relief

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* Medical Diagnosis, edition of 1864.
† Practice of Medicine, edition of 1868.
‡ Obscure Diseases of the Brain, edition of 1868.
§ American translation of eighth edition, 1871.
‖ Sex in Education.
** *London Lancet*, April 12, 1873.
†† Op. Cit.

which ensued, and it would be interesting to know whether the strychnia or the phosphoric acid was the more efficient. Strychnia is believed to act on the spinal cord and not on the brain, and is said to strengthen the beating of the heart,* and Headland says that along with the spinal cord, it doubtless also acts upon that part of the brain which is immediately associated with the spinal system of nerves.

Phosphorus is called by Headland a stimulant, quickening the pulse in small doses and somewhat heightening mental activity. It is given considerably in neuralgia, and the phosphates in nervous debility. In the *Practitioner* for July, 1873, M. Gubler speaks of it as a diffusible stimulant of great energy and dangerous activity. Fish, owing to its containing phosphorus, is recommended by Dr. Edward Smith† as being good for those doing much brain work, or victims of anxiety and distress. Ringer says that phosphoric acid exists in the blood as phosphates and acts as such. Dr. Slade-King‡ thinks phosphorus is probably decomposed into phosphoric acid, phosphoretted hydrogen and phosphorous acid when administered internally. Broadbent,§ after giving instances of the successful use of phosphorus in diseases of the nervous system, and speaking of the difficulty of administering it without impairment of its efficiency by oxydation, scouts the idea of giving it in the form of phosphoric acid as absurd. Still, in this case, a powerful stimulus seems to have been exerted upon the brain by it.

Having spoken of this case to a medical friend, whose experience and ability I highly respect, he said he had found the combination I had used of decided benefit, but thought the addition of small doses of quinine made it a more powerful nervous stimulant. This combination I have taken myself, while suffering from cerebral exhaustion, and with wonderfully good effect; so that, taking one-thirtieth of a grain of strychnia, one grain of sulphate of quinine, dissolved in fifteen drops of dilute phosphoric acid and water to a drachm, directly after each meal, I found myself feeling mentally stimulated during the first day; having a pressure within the head during the second day (something very unusual for me); and on the third day, able to write letters and do an amount of mental and muscular work that was very gratifying, and which I had for months been unequal to. But for such stimulus to my nervous system, I am confident that work which I went through with between seven and four weeks ago, would have been quite impossible, and that much less than I accomplished would have made me sick. The phosphate mixture seems already to have acted as a tonic to the nervous system.

The shower-bath, as administered in this case, had a happy effect. The fall of water on the head probably stimulated the brain, while

* Ringer.
† On Foods, 1873.
‡ *Practitioner*, June, 1873.
§ *Practitioner*, April, 1873.

the warmth acted as a general calmative to the nerves. Walton* says that the warm bath has been used advantageously in mania, chorea and hysteria; and Forbes Winslow† says the shower-bath is often used with great benefit, particularly in certain forms of melancholia, associated with nervous depression and general debility, and that a warm bath a short period before retiring to rest will often insure a quiet and composed night, when no description of sedative, however potent its character and dose, would influence the system.

Finally, my hope that this case may be of some interest to others, as it certainly was to myself, must be my excuse for the length of this communication.

The late Lord Denman.—The *British Medical Journal*, January 3, 1874, states that the memoir of the late Lord Denman, by Sir Joseph Arnould, contains a study of aphasia of great interest. On the 25th of December, 1872, his lordship had a paralytic attack. His biographer thus describes the condition in which it placed him: "While he retained his intellectual and emotional faculties almost unimpaired, his powers of communication with others, by writing as well as by speech, were absolutely and entirely taken from him. That speech, indeed, should go, was quite in the ordinary course of paralytic seizures; but it does not, it is believed, always, or, indeed, often, follow to the extent that it did in Denman's case, that the power of self-originated writing should be totally extinguished. He could frame written letters with a pen; he could readily distinguish one ivory letter from another when ranged in lines before him; but to form these letters into words, or words into sentences, was utterly beyond his powers, unless the words or sentences were written, or put together as a model for him to copy. When he had received letters—and many kind correspondents, knowing the delight he felt in perusing them, were constant in writing to him—the only way he could acknowledge them was by copying, in a sort of formal print-hand, any passage in them that had particularly pleased him, and causing that to be sent to the writers, in token that he had read and been pleased by their communications. . . . . He soon wrote very tolerably with the left hand, but it was found that he could 'originate nothing;' and when some deeds were sent from England for his signature, he could only sign his name by seeing it written out and copying it; and yet his mind was as clear as ever to receive impressions. He could read, and could clearly understand everything that was either read or said to him. Law reports, debates in Parliament, &c., interested him as much as ever; and he showed by his countenance and by signs that he not only appreciated fine passages, but that he perfectly understood controverted points, and, could he have expressed himself, was as capable as ever of deciding them." In this state he continued for nearly two years—his death taking place rather suddenly on September 22d, 1854.

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* Mineral Springs of the United States and Canada, 1873.
† Op. cit.

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. Hayden, M.D.

(Concluded from page 145.)

Anti-febrile Methods in the Fevers of Children.

Dr. G. Mayer, of Aachen *(Jahrbuch für Kinderheilkunde,* July, 1873) objects to calling salt baths of 86° to 89.6° warm, as in Dr. Schwalbe's article (vide Journal, Feb. 6, 1873, p. 135). A bath of this temperature does not feel warm to a person in health; to a child with fever and a temperature of 104° it must feel decidedly cool. In typhoid fever, Ziemssen uses, with children and chlorotic girls, a bath gradually cooled down, beginning with 95°–86°, and has often found that, by diminishing the temperature to 83.7°, this has sufficed to lower the temperature of the child two to three degrees for four or five hours. The author, in a very extensive practice, has been in the habit, for several years, in febrile diseases of children, especially in typhoid fever and croupous pneumonia, sometimes, also, in fevers depending upon transitory disturbances of digestion, and setting in with a very high temperature, of using cool baths, partly of 90.5°, cooled down to 86°, 81.5° or 77°, partly of a stationary temperature of 83.7°–86°, and has nearly always seen good results immediately follow in the way of quieting the child, producing better sleep, &c., although, in the majority of cases, he had no opportunity of taking exact measurements of the temperature after each bath.

Liebermeister lays great stress upon the size of the child, as to effect produced, the larger the surface upon which the cool bath acts, the greater the reduction of temperature. The effect upon adults is well known. Jürgensen, the great advocate of cold baths, uses, in certain forms of pneumonia, a temperature of 86° lowered to 77°, of twenty minutes' duration, always obtaining a considerable reduction of heat for a relatively long time. The author agrees only conditionally to Schwalbe's statement that the use of cold baths meets with insurmountable difficulties in children. When unaccustomed to them, they are always frightened, but when habitually given in health, in case of sickness they can also be given, and whether a little more or less cool makes no difference. In older children, from six to fourteen, a great fuss is often made. In some cases, the author was obliged to desist. In such cases, the local application of cold (ice-bags to the breast and abdomen, Riegel) and quinine serve as good substitutes. In very severe cases, when the temperature is continuously high, or when it rises rapidly, as in typhoid fever, scarlatina, pneumonia, and certain cases of acute rheumatism, these moderately cool baths (86° lowered to 77°) do not suffice, and more energetic measures become necessary. Since 1870, when the author reported a number of cases thus treated, he has used cool baths with more than twenty children affected with typhoid fever, and always with good results. The milder cases were not subjected to this treatment. The two youngest were respectively nine and seven months old. The full bath was almost always used, beginning with 90.5°–88.2°, and gradually cooled

to 81.5°–79.2°, or, where the patient's temperature was very high, to 72.5°–70.2°. The duration was generally ten to fourteen minutes. The child's temperature was taken every three hours, in the severest cases, day and night. When it reached 103.6° in the axilla, or 102.9° in the rectum, the bath was used. The rectum was used with children up to two or three years old; after that age, the axilla always. For measurement in the rectum, the small thermometers of Geissler, in Bonn, are recommended; for the axilla, larger ones, as, for example, Leyser's, are preferable. The taking of the temperature can be entrusted to intelligent parents, thus making the attending physician's duties lighter, and his visits less often. The author expresses great astonishment at Professor Vogel's want of recognition of the great advantages of exact thermometrical measurement, in his work upon children's diseases, causing his therapeutics, since the first edition in 1860, to remain stationary, and to be behind the age. In the catarrhal pneumonia of children, for which, especially, Schwalbe recommends warm salt baths, the author does not consider cool baths necessary, as the cold water dressings to the back, as recommended by Bärtel, Ziemssen, Steffen and others, answer the best purpose. In this disease, it is not so much the high temperature that causes danger, as the impediment to respiration, and cold water dressings act most favorably in such cases, by causing deep inspiratory acts, at the same time, also, lowering the temperature. In croupous pneumonia, the reverse is the case; and here, owing to the continuous high temperature, the cool baths are indispensable. In one hundred and ten cases thus treated by Jürgensen with baths, quinine and wine, there were only four deaths, and in three of these the pneumonia was a sequel of other diseases, one being complicated with pericarditis and purulent infiltration. In Jürgensen's own child, 19 months old, the temperature rising above 104°, and this rapidly, after a bath of 66°, he did not hesitate to lower the temperature of the bath to 45.5–42.2°. The author believes the exceptions very rare where the dangers of croupous pneumonia cannot be removed by this anti-pyretic method, although he has, as yet, never resorted to baths lower than 72.5°.

In scarlatina, according to Dr. D. Pilz (Treatment of Scarlatina and consecutive Dropsy by Baths), the effect upon the temperature was less than in typhoid fever; in the worst cases, several times negative. From his own experience, the author agrees with Dr. Pilz that cold water treatment in scarlet fever offers less chances on an average than in other diseases with an equally high temperature, partly owing to the complications, dangerous in themselves, independently of the high temperature (diphtheria, nephritis, &c.), and partly to the persistency with which the disease keeps its high temperature. When employed, the lowest temperatures must be used. The cases best adapted for this treatment are those where, from the very beginning, the temperature reaches a high grade, in the first days reaching 105.8°–107.6°, and when the child is threatened with death under symptoms of coma and convulsions. Analogous to these cases are the cerebral attacks, with sudden and excessive rise of temperature, in acute rheumatism, until but recently understood. In excessively high temperature, the energetic use of cold should never be left untried. Possibly, the good results of cold affusions in the last stages of cerebral diseases of children depend upon the hyperpyretic rise of temperature in such

cases. With regard to quinine, the author has been in the habit of using it in large doses, especially in typhoid fever, to a child six years old, giving eight to twelve grains at evening, in two doses, at half an hour's interval, and has never seen any ill effects, save occasional vomiting, a little increase of diarrhœa, and deafness. Ringing in the ears is rare, and the sleep is generally better. In most cases, there is marked diminution of temperature, lasting until the following day, and most marked toward the end of the forenoon. Since Hagenbach's publication upon "the use of quinine in fevers of children" (vide JOURNAL, Feb. 6, 1873), and after Liebermeister increased his maximum dose for adults to half a drachm, and Jürgensen to 80 grains, the author has resorted to larger doses, which he finds, by experience, to be free from danger and of great effect. The medicine is given in form of pill or powder. When the child is too young to swallow a pill, it is prescribed as a powder, to be taken in a wineglass of water, containing one or two dessertspoonsful of red wine, and sweetened. The whole is to be taken in the course of an hour or less, repeated, generally, every second day, exceptionally taken two evenings in succession. In connection with the cool baths and quinine, all observers now agree that a relatively generous use of wine is not only useful, but necessary. Jürgensen gives wine always before and after the bath in pneumonia. The author, in his treatment of typhoid fever and pneumonia, makes free use of Bordeaux and Tokay wine, and mentions the case of a child, nine years old, with typhoid fever, who drank daily, for several weeks, a half bottle of Chateau Lafitte.

FUNGOUS GROWTHS IN THE LUNGS IN WHOOPING COUGH.

Letzerich has previously published an article in which he ascribes the cause of whooping cough to a fungus. He was able to produce this disease and its lung complications in rabbits, by bringing the fungus in contact with the mucous membrane of the epiglottis or trachea. In the same way as we have parasitic diseases of the skin, so we have them in the cavities of the mouth, fauces, larynx, trachea and œsophagus. Thrush, diphtheria and whooping cough, he regards as such. The fungus in diphtheria destroys the epithelium of the mucous membrane upon which it grows, especially that of the tonsils, fauces and upper portion of the larynx, gives rise to the formation of an exudation, and penetrates through the mucous membrane and lymphatic glands into the blood, setting up a general disease, which, in every case, is combined with a peculiar inflammation of the kidneys. The fungus of pertussis penetrates less deeply into the tissues, never destroying them, covering the folds of mucous membrane of the larynx, epiglottis, and generally extending as far as the bifurcation of the trachea. This causes an irritation of the nerves of the mucous membrane and its glands, by which a secretion of tough mucus takes place, increasing with the increased development of the fungus. The growth of the fungus and the mucous secretion exercise a steadily-increasing irritation, bringing on, at longer or shorter intervals, the characteristic paroxysms; with each paroxysm, masses of the fungus are expelled; a certain amount remains behind, and by reproduction and extension causes irritation anew and produces new paroxysms. After the disease has lasted some time, the secretion of mucus becomes more copious and of thinner consistence, containing less and

less of the fungous growth until, finally, it is all removed and the disease is ended. If the fungus extend further down into the bronchi and alveoli, which occurs most commonly in very young or weakly children, and in the severer epidemics, a catarrhal inflammation, with emphysema, ensues, the most common cause of fatal termination.

The microscopic examination of the lungs of those dying with secondary lung affections, shows extensive emphysema, and the presence of this fungous growth, even in the alveoli themselves. It wanders, but slowly, at first, into the parenchyma of the lungs, so that, at first, the inflammation is confined to isolated lobules.

The author had an opportunity, in a recent epidemic of pertussis (*Virchow's Archiv*, 57 Band, 3 and 4 Heft, 1873), to try the effect of quinine, as recommended by Wilhelm Jansen, in the Children's Hospital at Bonn, under Prof. Binz. The remedy exerted a most favorable influence on the disease, the paroxysms becoming less violent and less frequent; the duration of the disease was also shortened.

Quinine works, in a high degree, as a check upon the development of fungous growths. If this remedy could be brought into direct contact with the fungus on the mucous membrane of the epiglottis, or in the trachea (if it has extended so far), a cure could be easily effected in a short time, and its extension further downwards prevented. The internal administration, long continued, has an injurious effect upon the organs of digestion, necessitating, in many cases, its discontinuance. For these reasons, the author, in three cases, tried insufflation, adding to the quinine some bicarbonate of soda and powdered gum of acacia. The formula employed was:—

℞. Quiniæ muriatis, 0.01–0.015 grammes;
Sodæ bicarb., 0.015 grammes;
Acaciæ gummi, 0.25. grammes. M. Ft. pulv. D. No. x.

With two of these children, one five months, the other eight months old, the disease had existed already eight days, and was so violent that with each paroxysm, which recurred every quarter- to half-hour, there was vomiting, and very distressing retching; likewise, bleeding from the nose, and capillary hæmorrhages in the larynx. The insufflation, which required, at first, much practice, in order that the greater part of the powder should enter the larynx with forcible inspiration of the child while crying, was made twice daily. The tongue was fixed and drawn forwards with the little finger of the left hand. With the third child, a little boy four years old, a spatula was used, and the little patient was taught at the moment of insufflation to take a long breath. Improvement was rapid, and after eight to ten days no more fungi could be detected in the sputa, the only sure sign of cure. As a rule, a slight catarrh remains behind for a few days, owing to a sensitiveness of the mucous membrane.

Tetanus Neonatorum.

In the *Jahrbuch für Kinderheilkunde*, Dec., 1873, is an article on the treatment of tetanus neonatorum with chloral hydrate, by Dr. And. v. Hüttenbrenner, of Vienna. Three of these cases were treated by chloral hydrate in the clinic of Professor Widerhofer, and two recovered. The medicine was administered in the following way: One or two grains, alone or mixed with a little milk sugar, were administered, dissolved in breast milk, through the nose, as the mouth was

firmly closed. The administration was generally followed immediately by a paroxysm, which ceased when the action of the chloral began. When the child fell asleep, it was carefully watched, so as to repeat the dose on the approach of the next paroxysm. When the effect of a one-grain dose did not last sufficiently long, it was increased to two, sometimes to three grains, so as to obtain an action lasting several hours, as a good result is only obtained where the child is held in continuous narcosis. The child's nourishment must not be neglected, but the breast milk must be given through the nose. Where such patients suffer with colic or meteorismus, warm poultices are applied to the abdomen, and enemata are administered; internally, paullinia and tinctura krameriæ are given. Injurious effects from chloral hydrate are never observed when certain precautions are used. When there is an odor of chloroform in the breath, this is a sign of deep narcotism, and the medicine should be left off for a while, as, sometimes, chloral hydrate has an accumulative action. The three cases are reported in full, with records of the autopsy of the fatal case. The author draws the following conclusions:—

1. Tetanus is not an absolutely fatal disease.

2. The same can run through its course with or without fever. Those cases running a rapid course, with high fever, are cases where the tetanic symptoms are merely those of a general poisoning of the blood, whilst those cases without fever are to be regarded as of reflex origin, due to some peripheral irritation.

3. The cases without fever have a more favorable prognosis, although, where the fever is high, the prognosis is not absolutely a fatal one, as is shown by Dr. Kirchstetter's case, reported in the *Jahrbuch*, vii. *Jahrgang*.

4. Chloral hydrate is by no means a specific, but is a remedy preferable to all others:—

(*a*) Because it is a pure hypnotic;

(*b*) Because it has no unpleasant after-effects, as morphia has, causing hyperæmia of the brain;

(*c*) Because it is easily administered, and an accumulative action is very rare.

It has the advantage over chloroform of being more easily held under control. The child is put into a quiet sleep, and the consequences of long-continued muscular contractions, particularly of the diaphragm, are made less injurious. As tetanus lasts from fourteen days to three weeks, it is only necessary to enable the child to hold out this length of time for recovery to take place.

Diabetes Mellitus.

Senator, in the Berlin Medical Society (*Berliner Klinische Wochenschrift*, 1872, No. 48), reported two cases of diabetes mellitus in children, one a boy 12 years old, the second a girl 13 years old, running a rapidly fatal course; and he remarked that in children this disease was very rarely met with, and that in such cases the prognosis was much more unfavorable than in adults. In one of these two cases, as well as in two of six other cases found reported, it was a notable fact that they began with enuresis.

Niedergesäss (*Inaugural-dissertation*, Berlin, 1873), in addition to the above, describes a case, observed for a long time by himself in the

Berlin University Poliklinik, of a young girl 12 years old, previously healthy. The disease made its appearance one year after a fall upon the head. Repeated examination showed a large amount (six to eight per cent.) of sugar in the urine, and a large increase of urea. In spite of animal diet, glycerine and cod-liver oil, the disease terminated fatally, seven months after its commencement.

Neuralgia in Infants.

Children from two to six weeks old, especially males, suffer frequently with attacks of pain in the bowels, coming on about midnight, and lasting until four or five in the morning. Children thus affected cry violently, but towards morning become quiet, fall asleep and the next day are well as ever. This enteralgia does not seem to be caused by any fæcal accumulations; it is very noticeable, however, that during the paroxysm they pass no water, and at the end of it a large quantity of pale-colored urine comes away, as after an hysterical attack. The cause of this retention of urine is unknown. The disease affects children of all classes of society, indiscriminately, without reference to their hygienic condition. The remedy recommended by Dr. Boyd (*Edinburgh Medical Journal*, Feb., 1873; *Schmidt's Jahrbucher*, 1873, No. 2) is spiritus ætheris nitrosi, eight or ten drops in a drachm of water. Immediately afterwards, with escape of wind and the passage of a considerable quantity of urine, the crying ceases, and the little patient goes to sleep.

Changes in the Weight of New-born Children.

From experiments very carefully made, the details of which are given at length (*Archiv für Gynœkologie*, 5 Band, 3 Heft), Dr. Theodor Ketzmarszky Buda-Pest draws the following conclusions:—

1. All children lose in weight the first few days after birth.
2. The loss begins the first few hours after birth, due to the evacuations of the bowels and bladder; this can, however, sometimes be temporarily compensated for by an abundant supply of nourishment, and thus be converted into a slight increase of weight, lasting, however, scarcely more than six hours.
3. The increase, as a rule, begins on the second or third day.
4. The loss is more precipitate than the increase, so that up to the seventh day scarcely more than the half of what was lost is regained.
5. There is no causal relation between the beginning of the increase and the falling off of the remnant of the cord.
6. Boys, as a rule, begin to increase in weight sooner than girls, undergoing, probably, a smaller loss, and showing a greater gain.
7. The increase of weight is greater with children of those who have previously borne.

Color Test for Chloral Hydrate.—If we agitate chloral hydrate with essence of mint, the mixture becomes rose color, and by degrees a deep red. Boiling does not destroy this color, and sulphuric acid renders it even more intense. M. Carl Jehu says that neither the other oxygenated essences nor the simple hydrocarbons produce this reaction.—*Medical Press and Circular.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC.

NOVEMBER 24, 1873.—*Thoracentesis.*—DR. LYMAN reported a case to show the good results of this operation.

The patient, a man aged 26, had had a cough, with pain in his right side and dyspnœa, for about six weeks; and, latterly, there was some œdema of the feet. He was tapped, and is doing very well, showing a marked contrast to a patient in the next bed to him, who had gone on for a long time with an effusion, and who, now, has empyema. He also spoke of a case where he had made a permanent opening, and put in a tube. The opening had healed, and the patient was discharged, well, although there was considerable contraction.

Dr. TARBELL spoke of a case in which Dr. Minot had made a permanent opening, by cutting down between the ribs, which had done very well; also of a case in his own ward, where pus showed signs of pointing near the cardiac region. This was opened, and nine pints of pus removed. The patient, however, not doing as well as was expected, after exploring with the pneumatic aspirator, Dr. Tarbell cut into the pleural cavity in the usual place, and put in a tube. The improvement since has been very marked, the patient having grown fat and strong.

Dr. BOWDITCH said that he had always advocated free opening in these cases, but that at the present time the fact of the patient's insisting upon having ether would modify his treatment in some cases. He knew of four cases, within a year, where thoracentesis had resulted fatally, and he felt sure that ether had a great deal to do with the result.

Dr. ELLIS said that those cases where an operation was indicated, and the use of an anæsthetic was to be feared, would seem to be proper ones for the use of the atomizer with rhigoline or some other freezing agent.

Dr. LYMAN said that he was very glad that Dr. Bowditch had called attention to the possible danger in the use of ether in such cases, and was convinced that his idea was perfectly just and well founded. He had reason to think that if the case he had just reported had been etherized, he would have died from the fact of the extreme dyspnœa, sense of constriction and faintness which followed (causing him much uneasiness for fifteen minutes) and which was only overcome by prompt and repeated stimulation, and by encouragement of the patient to some personal effort, neither of which would have been available had he been paralyzed by ether. He farther said that the cause of the temporary distress was, doubtless, due to the removal of too much fluid at one sitting, the lung not being readily expansible, and the neighboring organs, especially the heart, being so suddenly dislocated to occupy the space from which the fluid had been removed.

Dr. ELLIS asked Dr. Bowditch with regard to the indications for stopping in the operation, and whether the severity of the cough and the action of the pump were not the most reliable ones.

Dr. BOWDITCH said that a very severe fit of coughing would make him stop, but that he considered a moderate amount as rather a good

sign, as it shows that the lung is expanding. What he considered the most important indication to cease drawing off the fluid was to be got from the feelings of the patient himself; namely, as soon as a sense of stricture or constriction across the chest was complained of, the operation should cease.

DECEMBER 8th.—Dr. TARBELL showed the two cases of thoracentesis, of which he had spoken at the last meeting, one of whom had been operated on by Dr. Minot, and the other by himself. They both were very satisfactory, the openings having healed, and percussion and auscultation showing that the lungs had returned to almost their normal condition. He then read the following paper:—

"As the subject of empyema was brought up at the last meeting of this society, and objections were raised to the etherization of any patient into whose thorax a free opening was to be made, I will report two cases which have lately been treated in the wards of the Massachusetts General Hospital, and will exhibit the patients.

"One case will show, as far as *one* case may, that ether is not necessarily unsafe in all cases of empyema. The other is a fair type of the cases where it is at least prudent not to give ether. Both cases will, I think, help to show that the danger lies, not in making a free opening while the patient is etherized, but in etherizing while the lungs are so oppressed that the least addition to their burden causes asphyxia.

"I.—Katy H., 13 years old, a mill-operative, was admitted to the Hospital, June 20, 1873. Her mother died of some lung disease. Her father is living and healthy. She has always been well until the present attack, which began two weeks previously, without known cause, with a short hacking cough, but no expectoration. The next day, Dr. Minot examined her, and found the usual symptoms of considerable fluid in the left pleural cavity, the heart being so dislocated that its impulse was heard and seen directly at the xiphoid cartilage. The next day, Dr. Minot performed paracentesis, removing about three pints of purulent fluid with the syringe. She seemed relieved by the operation, but the next day the pulse and respiration began to grow worse again, increasing in frequency until the 30th, when the record reads 'pulse 135; respiration 48; temperature 104.2°; cough urgent.'

"The patient having been fully etherized, Dr. Minot made an incision into the left pleural cavity, between the eighth and ninth ribs, below the scapula, allowing the escape of about a quart of inodorous pus. He then inserted a small rubber drainage tube, and syringed out the cavity with water.

"On the second day afterward, the patient came into my charge, her pulse having gone down from 135 to 100, the respirations from 48 to 30 per minute, and the temperature from 104° to 99.5°.

"The cavity was thoroughly syringed out, twice daily, with a weak solution of carbolic acid. Under good nourishment, mild stimulants, and no medicine except an occasional opiate, she steadily improved. In two weeks after the operation, she was carried out into the garden. In four weeks, she walked out. In four and one-half weeks, the discharge was but a few drops daily, and the tube was removed. Its removal was premature, however, for within twenty-four hours she lost her appetite, became hot and feverish with a pulse of 140 and temperature of 103°. The tube was replaced, the syringing practised as before, and continued until October 17th, fifteen weeks after the operation,

when the tube was finally removed. The wound healed in two weeks.

"At the time of the removal of the tube, the left side was much smaller than the right, but since then, the lung and left side of the thorax have expanded, until they are now nearly as large as the right, and there is very little deformity. The heart has returned to its normal position. The respiratory murmur is good over the left front, and fair over the back, down to within about two inches of the cicatrix of the incision. The patient is fat and rosy, with good appetite and strength.

"II.—Manuel Antone, 21, single, a Portuguese laborer, ignorant of our language, was brought to the Hospital, July 27, 1873, without any history except that he had been sick two months with cough, sharp pain in the left side, and, latterly, urgent dyspnœa.

"On examination, I found the symptoms of enormous distention of the left side of the thorax with fluid which had forced itself out between the ribs at some points, and was burrowing beneath and among the muscles in front of the chest. The heart was dislocated so far that its apex-beat was visible to the right of the sternum. He was literally gasping for breath.

"Without etherizing him, I made an incision through the skin and muscles just below and to the outside of the left nipple, giving exit to four and a-half quarts of creamy, inodorous pus. The distention was so great that the pus was at first expelled in a large stream to a distance of ten or twelve inches from his body. He immediately expressed a sense of relief. A poultice was applied to the wound, and frequently changed. Pus followed in large quantities from the incision, and the patient felt a little easier, but there were no means of determining the location of the perforation of the pleural cavity, and the serious symptoms did not abate. The pulse continued about 120, the respiration 34, and the temperature 102°.

"After waiting three days, I made another incision, plunging the knife directly into the left pleural cavity, between the ninth and tenth ribs, about four inches below and behind the angle of the scapula, giving exit to about two quarts of pus. A small rubber drainage tube was introduced. The cavity was thoroughly syringed out twice daily with a weak solution of carbolic acid (twelve grains to the pint of water). Little or no pus came from the first incision after the drainage tube was introduced. Stimulants and nourishing food were all the medicine he had.

"He improved steadily, with the exception of a single occasion when the tube became misplaced. In three weeks he began to sit up. In four weeks he was carried out into the garden. The discharge decreased slowly in amount until Nov. 18th—sixteen weeks after opening the thorax, when the tube was finally removed. The wound quickly healed. The heart has returned nearly to its normal position. There is resonance over the left side down to a line drawn about one inch below the angle of the scapula, and respiration is heard nearly to this line. There is but little deformity, and there is no lateral deviation of spine.

"I think the successful results in these two cases are due to the persistence with which the wounds were kept open, and to the free drainage permitted by the tube, and also to the faithful and thorough daily syringing of the cavity, carried out by Mr. Rotch, the house-officer.

"I have here a very efficient, and at the same time simple, contrivance for retaining the drainage tube securely; it was invented by Mr. Mosely, one of the present house-officers at the hospital. It is a rubber diaphragm about 1½ inches in diameter, and a strip of tin 2 inches wide through the centre of which the tube passes, and to which it is easily made fast by adhesive plaster. The ends of the strip of tin are then bent sharply upward—the tube is inserted into the wound, the convex surface of the tin turned toward the thoracic walls to which the ends are made fast by adhesive plaster, thus gently pressing the diaphragm against the wound, holding the tube firmly in place, and at the same time preventing leakage around it.

"To make the tin spring for retaining the drainage tube in its place, take a strip of common sheet tin one inch wide and ten inches long. In the middle of this make a hole just large enough to admit but not constrict the tube to be used. At a distance of three quarters of an inch from this hole, on each side, bend the tin at a right angle so as to form a letter U. At one inch from each of these right angles, bend the tin at another right angle, in an opposite direction to the first. Pass a narrow strip of adhesive plaster around the U-shaped depression so as to prevent its spreading. The tube is to be passed through the hole in the bottom of the U-shaped depression which is to press against the diaphragm through which the tube passes. Pad the ends of the spring with cotton batting, bend it to fit the form of the person to whom it is to be applied, and attach it with adhesive plaster.

"It was suggested at the last meeting that the symptom of a sense of constriction across the thorax, which is relied on as a warning of approaching danger, would be wanting if the patient were etherized. I believe it is conceded that this symptom is induced by the creation of a partial vacuum in the cavity of the thorax, which the lung cannot expand to fill. If a free opening is made with the knife, the air rushes in to replace the fluid flowing out—no vacuum is formed, and this objection does not hold.

"I believe, also, that it is not the usual custom, it certainly is not at the hospital, to etherize for the removal of fluid by means of Dr. Wyman's suction-syringe, or aspirator.

"Of these two cases, the first was fully etherized, and she suffered no ill effects from the ether at the time of the operation, nor subsequently. The second was not etherized. The idea of using ether did not occur to me, nor was it suggested by any of the physicians or surgeons present. The patient seemed to be having as much as he could do to get breath, even aided by voluntary efforts, and it would have taken but a slight addition to the burden to have stopped his breathing altogether. A little more pus would have done it. Had I etherized him, and in doing so deprived him of the little oxygen he was getting, the ether would have been exactly as important an element in causing his death as the proverbial 'last straw' was 'in breaking the camel's back.' The previous load must be taken into account and carefully estimated. It seems to have been pretty well demonstrated that a patient may be asphyxiated while being etherized for any operation.

"The additional danger in etherizing these cases lies in the fact that there is much less lung tissue in working order, through which the system may obtain the necessary oxygen; but the danger is im-

mediate, and I do not see how ether can be justly accused as the cause of a death occurring ten days or four days after the operation. The idea of the knife plunged directly into the thoracic cavity, and the pain also, is something terrible, and we would all wish to save our patients from such agony, if possible. I believe that many of these cases may be *safely* etherized, if it is slowly and carefully done."

Dr. Bowditch said that these cases show how surgical interference at the right moment may save life. He was still, however, of the same opinion as at the previous meeting, namely, that in cases where the effusion is so great as to seriously interfere with the respiratory function, ether should be given with great caution.

Dr. Ellis showed two patients to illustrate the curved line of dulness in cases of pleuritic effusion, of which he had previously spoken. One of the patients had been tapped, in the other the absorption had been spontaneous. Both showed in a very marked manner, that the highest point of dulness was at the side, the line gradually falling as it approached the spine. This line was mapped out by the percussion so as to be perfectly evident from any part of the room. The respiration he stated also followed this line.

Dr. Minot spoke of one point in connection with the case shown by Dr. Tarbell, in which a permanent opening had been made, namely, the very great advantage of syringing the pleural cavity out with a solution of carbolic acid. This so effectually controls the bad odor which is always present in these cases that, by this means, the operation can be done in a large ward, instead of having to isolate the patient as was formerly the case.

Villous Disease of the Bladder.—Dr. Fifield reported the case. C. C., a native of Ireland, 54 years old, and a resident of East Boston, entered the hospital Oct. 14, 1873. He has passed bloody water occasionally for twelve years. He had no pain until five years ago; since then he has had severe pain above the pubes and in the perineum, with a desire to make water frequently. Last March he had retention for the first time. He has had retention frequently since; it is always relieved by opiates and warm fomentations. He has worked at his trade (ship-carpenter) until three weeks ago, when Dr. Thorndike passed a sound and advised him to go to the hospital. He never had gonorrhœa or any venereal disease.

At present the patient is much emaciated; the countenance denotes suffering, appetite poor, pulse 95, tongue coated. Introduction of the finger into the rectum and pressure upon the prostate causes excruciating pain. The prostate is slightly enlarged. He passes urine every hour and has constant pain. On examination of the urine, the following characters were found: Color muddy; reaction alkaline; odor very offensive; albumen fifty per cent.; pus in large quantity, with considerable blood and mucus; sediment large; no casts.

He gradually failed, and died Nov. 8.

Autopsy, by Dr. Bolles.—The organs were generally in very fair condition, perhaps a little pale, but not otherwise remarkable.

The kidneys, especially the left one, were very much dilated by the backward pressure of urine. The ureters shared in the distention.

The bladder was large, and with the organs just mentioned, filled with thick purulent urine. Its mucous membrane was healthy looking except as mentioned below. Prostate not enlarged. Growing from

the trigonum vesicæ and base of the bladder behind it were one large and four smaller masses of villous growth, in all equalling the bulk of a goose's egg. The two or three smaller bunches were attached by a single narrow peduncle to the bladder, and the mucous membrane even in the immediate vicinity did not appear to be changed. The growths showed no disposition to increase at the base. The two largest were attached by broader bases to prominent rugæ. All spread out in fine branches at the top like bushes or sheaves of wheat; and, to the naked eye, almost exactly resembled the villi of the chorion.

Microscopically, they consisted of fibrous branched pedicles bearing tufts of branching villi, each branch usually consisting of a large looped vessel, twisted or perhaps varicose and tortuous and covered with cylindrical epithelium; but where these loops reached the general surface of the tumor, the epithelium was macerated off, leaving only the naked vessels, and these sometimes separated and formed an open loop; in some parts there was instead a membranous expansion bearing little short papillæ.

Dr. Fifield also showed two microscopic sections of the tumor, showing its villous structure very beautifully.

Dr. Jackson said that this disease was always found in the lower half of the bladder. He thought that, usually, a whitish, solid tissue could be found beneath the villous structure. As far as he knew, there was no reason to suppose that it ever affected any other part of the body than the bladder.

Dr. Fitz said that the term cancer was applied to this growth more from its gross appearance than from an anatomical or clinical point of view, as it was pretty well conceded that it was confined to the mucous membrane.

Petiteau and Isard on Iodoform as a Topical Remedy.—Dr. Courteaux (*Annales de Dermatologie et de Syphiligraphie*, vol. v. 1873-4) gives a summary notice of two recent works by these gentlemen on the use of iodoform. Petiteau's conclusions, which, Dr. Courteaux says, agree with his own and those of several surgeons at the Midi Hospital of Paris, are as follows:—

1. Iodoform is locally anæsthetic.

2. When dusted on ulcerating surfaces, it causes them to cicatrize rapidly.

3. It is most useful in small atonic wounds, or such as tend to creep or enlarge; soft chancres, suppurating buboes; syphilitic, varicose, scrofulous and cancerous ulcers.

4. It is the surest remedy to procure prompt cicatrization of syphilitic ulcers of all kinds.

5. It may be applied as an ointment, or as a solution in glycerine and alcohol, and in these forms is preferable to the powder when there is abundant suppuration.

6. It should be always accompanied in syphilitic affections by internal treatment.

Petiteau attributes its good effects to the simplicity of the dressing, to its antiseptic power, and to the absorbent property it possesses as a powder, and to its giving off iodine freely.

Isard, while agreeing with many of the conclusions of Petiteau, maintains that phagedæna is not controlled by iodoform.—*London Medical Record.*

Boston Medical and Surgical Journal.

Boston: Thursday, February 12, 1874.

In our issue of July 24th, 1873, we published some editorial remarks on *Jourdain's* so-called *Gallery of Anatomy*, and also a letter from Mayor Pierce to the secretary of a committee appointed for the suppression of this nuisance, in which his Honor promised that a new license should not be given to its proprietors. In spite of the efforts of the quack, the Mayor's promise was fulfilled, the Board of Aldermen coöperating in the interests of morality. We understand that Jourdain has applied again for a license, to the new Board, but as it is inconceivable that he should prevail, after such a precedent, and as the committee of the Boston Society for Medical Observation is on the alert, and ready to offer evidence as to the immorality of the exhibition, we may congratulate the community on being freed from this disgrace.

In this connection, we have a word to say on the conduct of the press. One or two journals briefly alluded to our attack, but not one dared to say to us "well done!" Jourdain's address, which is the gist of his mendacious advertisement that his "new museum will reopen shortly," continues to appear under the head of "amusements" in the daily papers, with, we believe, one single exception. The *Globe*, we are happy to say, has considered decency rather than money, and has put a stop to this disgraceful advertisement. Considering how much we hear of Boston's high moral tone, particularly when it compares itself with New York, is not the following fact a little remarkable? New York is cursed with a "Museum of Anatomy," but, as far as we know, the *Herald* is the only large journal that advertises it. We do not see its announcements in the *Times*, the *Tribune*, the *World*, the *Evening Post* or the *Commercial Advertiser*; but in Boston, the youngest daily paper is the only one that refuses a more inexcusable advertisement, for while in New York the "Museum" has a real existence, here it has not.

The recent death of the Siamese twins has re-kindled the interest of the profession in these strange beings, and now that an opportunity to settle the question of their anatomy has, finally, been obtained, by the removal of their bodies to Philadelphia for the purpose of examination, it is not without interest that we take a retrospective glance at some of the numerous statements and accounts of medical examinations which

have, from time to time, made their appearance in the medical journals of this and other countries. We would call the attention of our readers more particularly to our issue of Sept. 1st, 1829, where a full, and probably the first, account is given of them after their arrival in this country. The account, with the wood-cut accompanying it, show them to be very different creatures in their appearance from the rather infirm and sickly-looking brothers who showed themselves in this city a few years ago. The *Richmond County Gazette* gives an extract from the *New York Courier and Enquirer*, which appeared on their visit to New York a few weeks later. It consists of a statement from two physicians, wherein the opinion is expressed that "there can be no doubt but that, if these boys were separated by the knife and this band cut across at any part, a large opening would be made into the belly of each that would expose them to enormous hernial protrusions and inflammations that certainly would prove fatal;" and, further on, "they are so perfectly satisfied with their condition that nothing renders them so unhappy as the fear of a separation by any surgical operation; the very mention of it causes immediate weeping." This could hardly have been the case in later years, when experiments were permitted by them to ascertain the possibility of a separation, during their late visit to Europe.

The examination is to be made this week in the College of Physicians, Philadelphia, and we shall look forward with interest to the report.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, January 31, 1874.)

OPERATIONS were performed in the following cases:—Cancer of Lip, Cancer of Breast, Tumor of Jaw, Disease of the Ankle-joint, Polypus Nasi, Tumor of Neck, Talipes Varus, Felon. During the week, R. R. Injury to Foot, Tumor of Uterus, Compound Fracture of Leg.

Cancer of Lip—in a male adult. Dr. Cabot removed it by a V incision.

Cancer of Breast—of four years' standing, in a woman thirty-eight years old. Dr. Hodges remarked that the growth was of the kind known as atrophying or cicatrizing scirrhus. In this form of cancer, the cells contained in the alveoli, having undergone granular degeneration, and the latter being almost obliterated, the tissues contract. Hence the cicatricial aspect and the density and smallness of the growth, considering the time of its duration. This variety of the disease sometimes remained stationary for many, even a dozen, years. In the present instance, it was removed in deference to the patient's wishes. A single isolated, movable and superficial gland was excised from the axilla.

Tumor of Lower-jaw—in a man forty years old. Ten months ago, a cancer of the lip was excised; four months after, a swelling appeared on the outer side of the jaw, at a point corresponding with the location of the submaxillary gland. It has gradually increased, and now surrounds the bone, making a firm tumor of the size of a hen's egg. Dr. Cabot made an elliptical incision around a portion of skin involved by the disease and a section of the jaw on each side of it. The mass was then removed by cutting away its attachments to the floor of the mouth.

Disease of the Ankle-joint—in a boy sixteen years of age. He had been crippled by it for four years, and was a constant sufferer from pain. The joint was enlarged, the soft tissues were œdematous, and perforated on the inner and outer sides by fistulous openings communicating with its interior. On moving the foot, no crepitation was felt; this was due to the gelatiniform degeneration of the cartilage and synovial membrane. As to the comparative advantages of amputation and excision, Dr. Hodges said that, in this case, the former offered the best chance. The boy's health was impaired, and excision would require so long time (at least a year) for recovery; would involve such a risk to life, in his present condition, and in the end, probably, give the boy a foot so much less serviceable to earn his living with, that amputation and an artificial foot were to be preferred. Soupart's amputation was performed without loss of blood, the leg having been bandaged, as usual, from the toes to the tourniquet.

Polypus Nasi—in a male adult. Removed by Dr. Cabot, with forceps.

Tumor of Neck—of four year's duration, in a young female adult. It was situated in the sub-maxillary triangle, and of the size of an English walnut. Dr. Cabot excised the growth, which proved to be glandular, with a small cavity in its centre, containing pus.

Talipes Varus—congenital, in a boy of six years. The deformity was due to the contraction of the plantar fascia. This, Dr. Cabot divided subcutaneously.

Felon—incised by Dr. Cabot.

R. R. Injury to Foot.—Dr. Hodges amputated three toes.

Tumor of Uterus—of one year's growth, in a married woman thirty-two years of age. She had had one child. Last April, she first noticed a peculiar sensation in the lower part of the abdomen, "as though something was moving." The menstrual fluid at the same time became mixed with a yellowish discharge, and there was some tendency to flow during the intervals between menstruation. Now, the uterus can be felt, through the abdominal walls, as large as a child's head at six months. The fundus was tipped forward and the os backward. Within a few days, she has had what she describes as labor pains; since then, a large, round, hard tumor has been expelled from the uterus, and nearly fills the vagina. A broad and firm pedicle connects it with the interior of the uterus. Dr. Cabot made a number of attempts to cut off the growth with the wire écraseur, but each time the wire yielded instead of the pedicle. He then cut the pedicle with curved scissors. There was very little hæmorrhage during and after its removal. Under the microscope, it proved to be myo-fibroid.

Compound Fracture of Leg—in a man who was unable to account for his condition. The wound was enlarged, and the protruding fractured ends were approximated and wired by Dr. Cabot. H. H. A. Beach.

BOSTON CITY HOSPITAL.

Among the surgical operations last Friday, February 6th, were the following:—

Excision of the Head of the Femur was performed by Dr. Cheever. The patient was a child of seven years. He came to the hospital Dec. 1st, with the story that there had been symptoms of hip disease during the previous month; there was pain about the joint, limping, flattening of the nates, muscular rigidity. He was put in bed, and a condition of rest to the joint maintained by extension by a pulley and weight. During the first month of this treatment, there was amelioration. Then there was a relapse, and during the past six weeks the symptoms were more severe. Latterly, an abscess had formed about the joint, accompanied by daily hectic. The abscess was opened four days ago, and an extensive sinus discovered, communicating with the joint. At present, under ether, distinct grating was felt on motion of the parts.

The operation for excision consisted of the exposure of the hip-joint by a

V-shaped incision of the soft parts, separation of the head of the bone from the acetabulum, and section of the surgical neck of the femur by means of a chain-saw. The section of the bone above the trochanter was done because by this division all the diseased part was removed, and because it spared division of firm, muscular attachments posteriorly, which were likely to be of future use to the patient in swinging the limb. The V-shaped flap was fastened up to the skin above by a wire suture, and the wound was left open to granulate. Extension would be presently applied.

The head of the bone was extensively eroded, and partially absorbed. The acetabulum was slightly carious at its upper margin.

Dr. Cheever said the absence of grating in the joint is not a proof of the absence of caries; since it sometimes happens that the head of the bone is covered by soft granulations, which serve as a cushion to conceal the rubbing sound.

Dr. Wadsworth performed Enucleation of the Eyeball in the case of a female patient, forty years old, who had presented herself a month ago with purulent ophthalmia, and a deep ulcer of the cornea. She refused hospital-treatment at that time, and after a few days returned with the cornea sloughing and the iris exposed. The removal of the globe was proposed, to save the excessive pain of farther inflammation in the diseased eye, and to prevent the occurrence of sympathetic ophthalmia in the other eye.

Dr. Wadsworth also operated for Convergent Strabismus in an adult patient. He called attention to the fact that, during anæsthesia, the deformity appeared less, and the divergence, after the operation, greater than when the patient was not under ether. After division of the rectus muscle, he closed the conjunctival wound with a small silk suture.

Other operations, not reported in detail, were the Ligation of Internal Hæmorrhoids, and the opening of an extensive Palmar Abscess.

On Tuesday, February 2d, Dr. Cheever performed Herniotomy. The patient, a man of middle age, had had a reducible hernia for many years. It now filled the right half of the scrotum, and was of the oblique inguinal variety. The scrotum was tense, shining and red, but the rupture was not very tender. It had been down six hours, and taxis had been used. The patient had nausea and colic. He was etherized, and taxis was again employed, aided by inverting the patient, and pushing back the contents of the abdomen from the right groin towards the diaphragm. Near the canal, the hernia felt very hard and dense. Taxis proving ineffectual, herniotomy was done. The sac contained a large amount of bloody serum; about six inches of small intestine lay in it, in a loop. The bowel was congested, but not very dark. The ring was tightly filled. The stricture was divided upwards, and the bowel freed.

It was then found that the mesentery, which constituted the bulk of the neck of the hernia, was extensively ecchymosed, with extravasated, dark blood. This unusual condition must have resulted from the taxis, and the condition of the intestine must have grown rapidly worse, if subjected to the double interruption of its circulation, consequent on the ecchymosis and the stricture. The bowel was easily returned; the abdomen was carefuly sponged out, and a spica bandage applied. F. W. DRAPER.

Correspondence.

THE SQUIRE INVESTIGATION FROM A CHEMICAL POINT OF VIEW.

MESSRS EDITORS:—I claim the right to reply to your editorial of January 22nd. The Squire trial was, as you say, a judicial investigation conducted by an executive body—so it seems to the mind of a layman. This tempts me to ask why legislative acts mean so much when constitutions mean so little; to inquire what is the intent of the Bill of Rights, when it says the three branches of the government, legislative, judicial and executive, shall

not be held in common "to the end that this may be a government of laws, not of men."

If the health Acts are constitutional, this State Board and all other Boards of Health have, as you say, "*unlimited power of action!*!" For they can search without warrant, seize without judgment, confine for no offence. They can make rules which the courts shall enforce by penalty, without even the safeguard of the veto interposed! They can try and render verdicts as you have shown, and are empowered to execute in person their own judgments and decrees—even more—they can give their despotic powers to whom they will.

The charge of infant murder "you will not dwell upon." Reading the report of the State Board of Health for 1873, p. 227, one cannot but notice that in Boston, where no slaughter houses are, the effects of poverty and dense population of foreign descent caused the infant mortality of one district to be six times that of another a mile off. It can hardly be supposed these causes have a like effect in Cambridge. These cities are too far apart.

In Boston the wealthy are healthy, (see p. 228, Report of 1873.) Profitable employment is a sanitary agent of marvellous power, worth more than all others put together. But should a medical journal recommend that moneyed interests be left out of sight? Logic has been at a discount since Dr. Holmes wrote the "One Hoss Shay."

You speak of chemical special pleading "summoned to confound the natural senses of man." Is the scientific method a failure. as Dr. Ewer pronounces Protestantism to be? Are we to return to the unaided senses to discover truth? Shall we condemn any industry as a nuisance without remedy, guided by intuition alone? Shall we disregard evidence? Two chemists investigated this case separately. They had no previous acquaintance with each other or with the cause on trial. Neither knew the results or arguments of the other until they were read in open court.

One at least was to receive a fixed compensation for the investigation, whatever his report, and he has received neither more nor less. Yet so far as these chemists covered common ground their results were identical.

Are scientific men destitute of hearing, sight and smell, that the testimony of their senses, aided and unaided, should be ignored?

In all previous investigations, the complainants rested their case on the sulphur gases that blackened their paint and broke down on acrol which has not been mentioned in the present trial. When this time they testified, one and all, that the nights of discoloration were the nights complained of, they spoke truly.

Yet the Board of Health to-day, if their summary can be relied upon, say these gases come from the basin.

It was distinctly proved that factories rendering fresh lard gave no offence. If the Squire factory gives out such odor it must be supposed that putrid fats are maliciously rendered there. But the 1871 report of the Health Board expressly says that if the vapors from tight tanks are discharged under water all offence is avoided.

This apparatus, approved by the Board, was so violently attacked that a new contrivance, adding destruction of the gases by fire to the former precautions, was adopted. But this new precaution was still more bitterly inveighed against. Scientists approved it, small politicians did not.

It is a certainty that putrid matter in contact with an acid gives off the identical vapor that comes from a putrid body, boiling or trying out. No one denies the putridity of sewage products in hot weather.

It is known that immense quantities of acids go into the sewers. Mineral acids from factories, lactic and acetic acids from household refuse, and all fermenting matters. It is not a matter of guesswork that drains of small fall and settling basins give off rendering smells.

On one occasion, a yacht off Hingham got aground on the mud banks; every body at once exclaimed, where is the bone factory? Yet there was none within miles. When will medical men learn the simple chemical fact that the *rendering smell* comes off whenever an acid runs over or is generated

within a putrid mass. As for the noise, pig objects to become pork and will. Suppose we deafen the wall of the sticking pen as architects do floors.

C. E. AVERY.

Medical Miscellany.

WE are informed that the government of the Long Island College Hospital has refused to accept Dr. Greene's resignation of the Chair of Surgery, and that he has accordingly withdrawn it. Dr. Greene holds the same position at Bowdoin.

THE COUNCILLORS OF THE MASSACHUSETTS MEDICAL SOCIETY, at a meeting held last week, passed a resolution appointing a special committee to urge upon Congress the repeal of the Act of 1869, so far as it concerns the Army Medical Staff.

THERE seems to be quite an unanimous opinion as to the propriety of passing the bill now before Congress to increase the efficiency of the medical department of the army. The Essex North District Medical Society recently passed resolutions similar to the following:

"At a Regular Monthly meeting of the Suffolk District Medical Society, holden in Boston on the thirty-first of January, 1874, the following resolutions were adopted:

"*Resolved*, That the Suffolk District Medical Society hereby cordially unites with the Ohio Medical Association in their Memorial to Congress in support of a Bill to increase the efficiency of the Medical Department of the United States Army, now before that Honorable Body.

"They consider it an act of justice that the members of so important a branch of the public service, gentlemen of the highest professional attainments and excellence of character, and charged with such weighty and responsible duties, should hold the same relative rank and enjoy the same emoluments as members of the other Staff Corps of the Army.

"That it be respectfully urged upon the Members of Congress from Massachusetts to use their influence in support of the Bill in question.

"That a copy of the above Resolutions, duly authenticated, together with a copy of the Memorial Pamphlet, be furnished to each Member of Congress.

"*Resolved*, also, that a copy of these proceedings be furnished for publication to the Medical Journals.

(signed) F. MINOT, President.

(signed) O. F. WADSWORTH, Secretary."

MORTALITY IN MASSACHUSETTS.—*Deaths in eighteen Cities and Towns for the week ending January* 31, 1874.

Boston, 136; Worcester, 10; Lowell, 16; Milford, 3 Cambridge, 22; Salem, 7; Lawrence, 17; Springfield, 12; Lynn, 16 Gloucester, 5; Fitchburg, 3; Taunton, 8; Newburyport, 4; Somerville, 6; Fall River, 16; Haverhill, 3; Holyoke, 7; Pittsfield, 5. Total, 206.

Prevalent Diseases.—Consumption, 55; pneumonia, 35; scarlatina, 24; typhoid fever, 14.

Of the deaths from scarlatina Boston reports 9, Lynn 6, Cambridge 2, Lawrence 2.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Feb. 7th, 135. Males, 74; females, 61. Accident, 5; apoplexy, 3; bronchitis, 5; inflammation of the brain, 1; disease of the brain, 7; cerebro-spinal meningitis, 3; cancer, 3; cyanosis, 1; consumption, 33; convulsions, 4; croup, 2; debility, 6; diarrhœa, 1; dropsy, 3; dropsy of the brain, 4; diphtheria, 1; scarlet fever, 6; typhoid fever, 1; gastritis, 1; disease of the heart, 2; inanition, 1; disease of the kidneys, 2; congestion of the lungs, 2; inflammation of the lungs, 10; malformation, 1; marasmus, 3; measles, 1; quinsy, 1; old age, 1; paralysis, 3; pleurisy, 1; premature birth, 2; peritonitis, 2; puerperal disease, 3; purpura, 1 scrofula, 1; tumor, 1; teething, 1; ulcers 2; unknown, 4.

Under 5 years of age, 49; between 5 and 20 years, 20; between 20 and 40 years, 31; between 40 and 60 years, 18; over 60 years, 17. Born in the United States, 94; Ireland, 33; other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

A REMARKABLE RECOVERY FROM ABDOMINAL SECTION.

By DAVID W. CHEEVER, M.D.

MRS. L., a young and healthy woman, has borne two children. The first was born in June, 1871; the second, April 9th, 1873.

In July, 1872, a tumor was discovered in the abdomen, on the right side, half way between the ribs and groin, as large as a butter-nut, and movable under the skin. It slowly increased, but did not interfere with pregnancy. The last child was a male, weighing nine pounds. The labor was natural. The mother was up and dressed ten days after the labor. She nursed the child one month, when it died suddenly, in convulsions, in May, 1873.

The tumor began to grow rapidly after the birth of the last child. The patient suffered chiefly from weight and distention, but not from pain.

June 20, 1873, she was sent to consult me, by Dr. A. C. Walker, of Greenfield.

On examination, it is found that an oval, hard mass, somewhere between an ostrich egg and a small musk-melon in size, occupies the right side and part of the centre of the abdomen. At one point, near the umbilicus, it seems adherent to the thinned skin. Otherwise, it is freely movable, and can be swung from side to side. There is no sign of softening, œdema or fluid. It is dull on percussion, though the resonant sound of the bowels is transmitted through it. When the patient tries to rise, while lying on her back, thereby putting the abdominal muscles in contraction, the tumor becomes firmly fixed. The hand can be pressed in between the tumor and the pubes. The pelvis is empty. The uterus is normal in size, position, depth and mobility. There is no bad symptom from the bladder, or rectum. The patient is otherwise in pretty good health, though a little anæmic. She is very urgent for an operation, as some physicians have told her that the tumor could be taken out with ease. The important points to determine are these: Is the tumor extra- or intra-peritoneal? Is it under the abdominal muscles? Is it adherent to the abdominal walls? Can it be removed?

There appears no evidence of any pedicle, or attachment deeply. It is manifestly neither ovarian, nor uterine. A tumor of the parietes, it may or may not involve the peritoneum.

In response to the earnest solicitation of the patient, it was finally decided that an exploratory operation should be tried; that if the tumor was outside the peritoneum its delivery should be attempted; otherwise, that it should be left alone.

Operation, June 26, 1873.—In a farm-house, in a mountainous region, where the hygienic surroundings were excellent. I was assisted by Drs. A. C. Walker, H. Temple and J. R. Fairbanks. The patient was etherized, and carefully wrapped in blankets. The place selected for the incision was about two inches to the right of the umbilicus. Here, a vertical cut, about four inches long, was made. My design was to cut over the rectus, rather than in the linea alba, that I might thus see the relation of the muscular fibres to the tumor. The knife penetrated at once into the tumor, without any appearance of muscle. Everything here was absorbed by the growth. The substance of the tumor was sarcomatous, firm, whitish and homogeneous. There was no fluid. As it was found impossible to reach the edge of the tumor through the single vertical incision, this was prolonged to six inches, and a cross cut was made to the right, four inches. Here, by careful dissection, the aponeurotic sheath was made out, lying over the tumor, and it was demonstrable that the foreign growth was beneath, or in the abdominal muscles. Was the peritoneum involved? Dissecting towards the right, the edge of the tumor was reached, and it was found that it could be lifted and separated from its bed. While conducting this enucleation as gently as possible with the hand, two fingers slipped, without warning, into the peritoneal cavity. The peritoneum was here and farther beneath adherent to the under surface of the tumor.

The tumor could now be demonstrated to be free from internal attachments, except to the peritoneum. What course should be pursued? The alternative was a very trying one. To leave it was almost certainly fatal. It had been so scored and disturbed that it must slough; and it communicated beneath, by a lacerated wound which it was impossible to close, with the peritoneal cavity. On the other hand, to remove it would take away a portion of the abdominal wall, muscles and peritoneum. The patient's general condition was good; breathing quiet; pulse full; no syncope or vomiting. I decided to complete the operation.

Proceeding now with excusable boldness, it was easy to remove the tumor, by free cutting and dissecting. This was at once done. On the left side, the rectus muscle was not much disturbed. On the right, it was quite destroyed. A strip of peritoneum, fully four inches wide at its widest part, and, perhaps, six inches long, tapering down at its extremities, was removed with the tumor. The abdominal cavity was now largely uncovered. The colon and stomach, as well as the small intestines, were visible. As quickly as possible, two large, warm sponges were put in the site of the tumor, and the hernial protrusions repressed. Warmth was applied to the chest, and a brandy enema given. The patient vomited, but soon rallied. A considerable time was consumed in securing vessels all around the incision, of which a great number had to be tied, including the epigastric artery. The cavity of the abdomen was sponged free of clots, and long, deep, silk sutures were passed. It was impossible to bring the peritoneal edges within two inches of each other in the centre of the wound. The ligature-ends were all brought outside, and a separate set of sutures closed, without tension, the three flaps of skin, which had been dissected off the deeper parts of the tumor, where it was not incorporated with the skin. Broad, adhesive strips were

firmly applied; then cotton wadding and a binder. The patient was immediately lifted into a warmed bed, between blankets, without sheets, and as soon as she roused and complained, she received one-fourth of a grain of morphia subcutaneously. Her pulse was excellent. She was now left in charge of Dr. Temple, of Charlemont, whose subsequent history of the case is subjoined.*

The pulse, from 130, ran down to 104, the first week. The bowels were tense and tympanitic for two days, when they began to subside, and at the end of a fortnight had diminished four inches in girth. From the third to the seventh day, a dark, thin, offensive discharge came in quantities from the wound. Bromo-chloralum was used as an antiseptic. Most of the stitches were taken out the fifth day; and by fourteen days, all the ligatures had come away, but two. The sound of gas in the intestines was very distinct over the wound. The two other ligatures came away, one the thirty-second day, and the last not until fourteen weeks after the operation. The urine was drawn for ten days. The bowels moved after two weeks. The patient was able to take nourishment from the beginning; and her hope and courage were marked, as they were before the operation. She also suffered very little pain. A subcutaneous injection of morphia was given every six to eight hours, for twelve days; for the next six days, twice a day.

Menstruation came on seven weeks after the operation. The patient lay upon her back four weeks. She sat up at the end of six weeks. She walked the tenth week.

Sept. 2d.—She sent for an abdominal supporter, which was applied, and she rode about, over rough roads, after twelve weeks.

January, 1874.—Six months after the operation, she looks well, rides about, and does some house-work.

On leaving the patient, the afternoon of the operation, I expressed the opinion that, if she should live, her salvation would be due to the removal of stitches and of tension, when it occurred; and to a free vent for the discharges from the pent-up fluids in the peritoneal cavity, with disinfectants and cleanliness. Nature, it proved, relieved her by a copious discharge from the wound, coming on the third day, and lasting profusely until the seventh day.

In her favor were previous health, youth, fortitude, hope, and superb hygienic surroundings, in a mountainous region, in the full glory of summer.

Against her were the shock of a large uncovering of the abdominal cavity; the loss of a broad strip of peritoneum; the closing in of the peritoneal cavity with the raw surface of the dissected skin; the presence of a multitude of ligatures; the chance of hæmorrhage, and the necessity of suppuration.

Cysticerci in the Brain.—At the autopsy of a man, aged 38, three hydatids, each the size of a pea, were found imbedded in the cortical substance of the cerebrum. Although the presence of these parasites in the brain usually gives rise to severe mental disturbance, in the present instance no symptoms of disease of the brain had ever been manifested.—*Centralblatt für die Medicinischen Wissenschaften*, December 13, 1873.

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* The tumor proved to be a spindle-celled sarcoma.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.*

By James R. Chadwick, M.D.

Obstetrics.

Des Indications de l'Hydrate de Chloral dans l'Accouchement. Par le Dr. A. Pellisier. Paris. 1873.

The author concludes, from his experiments and from the facts he adduces, that chloral hydrate, in the first place, exerts no prejudicial effect upon the health of the mother or child, and, secondly, that it produces sleep and a diminution of the pain without interfering with the regular uterine contractions. It appears to be particularly useful for the purpose of allaying the excitement caused by the pain in nervous, irritable women, who are dreading the pangs of childbirth. Its action is not to remove all perception of the pains, but merely to deaden, in a measure, the sense of feeling. The woman remains conscious that she is having a uterine contraction, but is not distracted by the intensity of her suffering; she is consequently ready to aid it by means of the abdominal muscles. Dr. Lambert, of the Edinburgh Lying-in Hospital, goes so far as to assert that the energy of the uterus is absolutely augmented by chloral, so that the contractions become less frequent, shorter and more powerful.

Sudden Death from Syncope soon after Labor.—Dr. J. J. Philips (*Guy's Hospital Reports*, xviii. 3) takes up the subject of cardiac syncope, passing by the sudden deaths in childbed that are due to embolism, the entrance of air into the veins, shock from uterine lesion and hæmorrhage. The patients generally have a natural labor, but, a short time after delivery, are seized with a faintness, subsequent to some slight effort, such as rising in bed; from this they never recover. The women in whom it occurs are commonly multiparæ, pale, in poor health, and with a history of some antecedent shortness of breath. The microscope has always shown well-marked fatty degeneration of the muscular tissue of the heart. This change can only be regarded, however, as an exaggeration of the physical processes which naturally take place in the body. Sudden death after delivery differs in a measure from that occurring during labor, though both may be attributable to weakness of the heart. In the latter category of cases, the right side of the heart is presumed to be choked by the accumulation of blood in it, owing to the difficulty of its transmission through the lungs during a labor pain, while the heart is embarrassed by the act of straining—hence failure of the heart. So, in valvular disease, death may supervene in the middle of labor, when the volume of blood is augmented by its expulsion from the uterus during contractions, and thus the heart become overburdened. Dr. Thompson believes that, in cases where the circulation is weak, ergot must be prescribed with the greatest circumspection, on account of its depressing influence on the heart. Dr. Philips, in conclusion, cites

* The Editors would express their thanks to Dr. Chadwick for having undertaken, at short notice, the report which Dr. Richardson, the regular reporter, was prevented by illness from writing.

four cases of fatal and two of non-fatal syncope, which have come under his observation. Ergot was administered to two of these patients. Such cases indicate the necessity of insisting upon a strict maintenance of the recumbent posture for some time after delivery, and the application of an abdominal binder, to compensate, in a measure, for the sudden removal of pressure to which the viscera and large vessels have been subject for a number of weeks.

Transfusion.—This means of reviving exsanguinated patients has been brought into notice in England by a successful case, which was reported to the Obstetrical Society of London by Dr. J. H. Aveling. It is to obstetricians that this subject is of chief interest and importance, for, although it is available in every form of dangerous bleeding, yet it will unquestionably be resorted to in uterine hæmorrhage more than in any other emergency. Its employment, in cases where the quality of the blood is altered, is still of dubious utility. The immediate effect of injecting blood into the veins is varied; in some instances, "patients have started up, as if from a long sleep, moved their limbs, and even asked for food; others, even of those who have eventually recovered, have only slowly shown signs of returning life. In general, the pulse soon becomes stronger, the respiration more regular, and the skin warmer. If the favorable symptoms are not maintained, the operation should be repeated, because their appearance shows that the system is capable of responding to the means employed."—(Dr. H. M. Madge, in *British Medical Journal*, Jan. 10, 1874.)

The principal forms of transfusion are four:—

1. Transfusion with defibrinated blood.
2. Mediate transfusion with pure blood.
3. Immediate transfusion from vein to vein.
4. Immediate transfusion from artery to vein.

1. Transfusion with defibrinated blood has thus far been the method most in vogue, its chief advocate being Dr. Robert McDonnell, of Dublin. He regards defibrination as an essential condition, because of the rapid coagulation of pure blood and the consequent liability to the formation of small emboli, to which he attributes all the deaths that have occurred a few days after the operation. Fibrine is also, according to some of the recent, though not universally accepted, views of physiologists, an excrementitious element, as shown by its "absence from the blood which has passed through the great depurating organs of the body."—(*Obstetrical Journal of Great Britain*, i. 8.) The oxygen contained in the red corpuscles is the true revivifying agent, and defibrinated blood, consequently, has the elements necessary for temporary stimulus. It is, therefore, physiologically better and surgically safer than pure blood. Dr. McDonnell has operated in several cases, of which three or four have been successful. His procedure is to catch the blood in a basin, whip it with a stick, or better still on the grounds of cleanliness, with a glass rod. In two or three minutes, the fibrine is found adhering to the rod, when the blood must be strained several times through fine linen. It is then ready for use, and is placed in a glass cylinder, capable of holding six ounces, shaped like a syringe, but devoid of a piston; to the nozzle is affixed a long rubber tube, with a canula at its extremity for insertion in the vein. The blood is driven into the vein by gravitation, aided by a small propelling bulb in the middle of the tube, and the occasional

gentle blowing of the operator, with his mouth applied to the open top of the cylinder. The apparatus is spoken of as comprising every possible requirement in a small compass.

2. Mediate transfusion with pure blood has been performed by Mr. Higginson, of Liverpool, in fifteen cases, of which ten were successful. His instrument resembles a syringe, but is bulky, owing to the precautions taken to keep the blood and the instrument warm, and to prevent the entrance of air into the vein. These contrivances would seem superfluous, in view of the recent discovery that heat promotes coagulation, and cold retards it. The entrance of air into the veins is, moreover, not now regarded with the same apprehension as of old, for Oré has shown that, although a large quantity of air, forced into the femoral vein of a dog, will cause death in a few minutes, a small quantity may be introduced with impunity (*Etudes sur la Transfusion du Sang.* Paris, 1868).

3. Immediate transfusion from vein to vein has been revived and perfected by Dr. Aveling (*Obstetrical Journal of Great Britain* i. 5 and 6), whose instrument, as he very justly remarks, forms an anastomosis between the circulatory systems of the two individuals (they become Siamese twins for the time being). It consists of a rubber tube, about a foot long, with a bulb at the centre. Two canulæ are inserted into one of the larger brachial veins of the patient and of the blood-donor respectively—the former being directed toward the heart to discharge the blood, and the latter toward the periphery so as to receive it. There are no valves to the central pump, for fear they might become centres for the formation of fibrinous clots; as a substitute for them, the finger and thumb of the left hand are made to compress the tube on one or the other side of the bulb, according as the bulb is expected to forward its contents toward the patient, or to refill itself from the veins of the donor. Before being affixed to the canula, the tube is filled with warm water, so that the first syringefull injected is pure water; this has not proved deleterious. This process is repeated as often as is thought desirable, the amount of blood transfused being gauged by the number of times the pump is emptied, its capacity being two drachms. This procedure of Dr. Aveling's has been seven times successfully applied in England, and it certainly offers more advantages than any of the others. These advantages are thus stated by the author:—

a. The exact quantity of blood required is taken from the donor, and no more.

b. No delay is caused by previous complicated manipulations of the blood, it being allowed to pass from vein to vein physiologically unchanged.

c. The chances of coagulation are small, because the blood is removed from the action of the living vessel for only a few seconds, and glides smoothly through the India-rubber tube, without being exposed to the air.

d. The apparatus is effective, simple, portable, inexpensive, and not likely to get out of order.

e. The operation is safe, uninterrupted, and a close imitation of nature.

4. Immediate transfusion from artery to vein is the oldest form, and was not, at the outset, very difficult, as the early operations were

confined to animals. The direct transfusion of a lamb's blood into veins of human beings is illustrated by cases reported by Dr. Oscar Hasse, in the *Allgemeine Wiener Medicinische Zeitung* for December, 1873 *(London Medical Record,* Dec. 31, 1873), where the patients were suffering from phthisis, chlorosis, dysentery, &c., all of whom received benefit. The blood of the lamb is preferable to that of other animals, because its corpuscles most nearly resemble in size those of man. No one has yet been bold enough to recommend, or practise, the opening of an important human artery for the purpose of arterial transfusion.

The *modus operandi* of transfusion is not understood, though there is a belief, generally prevalent, that the blood injected goes directly to the heart, which is aroused to increased action by the presence of its natural stimulus. Hüter, however, seems to have satisfactorily demonstrated that the blood does not go directly to the heart, but is diffused in the general venous system. The whole subject needs investigation, and, if its employment continues to yield as good results as it promises to do, experimenters will be amply repaid for all the time and labor which they may bestow upon it.

Action of Ergot on the Bladder.—Dr. Wernich *(Centralblatt für die Medicinischen Wissenschaften)* expresses the opinion that the fulness of the bladder, after the administration of this drug, is due, not only to retention of the normal amount of urine, owing to the irritant action exerted upon the sphincter vesicæ by the preparations of ergot, but also to an increase in the amount of that fluid secreted. The practical bearing of this view is, that the bladder must be repeatedly emptied after ergot has been given, whether during or subsequent to labor.

Injection of Perchloride of Iron in Post-partum Hæmorrhage.—On February 5, 1873, Dr. H. Smith *(Obstetrical Journal of Great Britain,* i., 1) reported a case to the Obstetrical Society of London, in which he had resorted to this treatment to check a persistent secondary hæmorrhage. He began with a solution of one part of liquor ferri perchloridi fortior to eight parts of water, and increased the strength on the following days, until the twenty-first, when he injected two drachms of the pure liquor. This arrested the bleeding, but gave rise to immediate acute pain. On the twenty-fifth day, the patient was delirious, and had a brown, offensive discharge; on the twenty-eighth day, she died. At the autopsy, the source of the hæmorrhage was found to be an artery, which hung out more than an eighth of an inch from the uterine wall, near a small mass of placenta. The author's deductions are:—

1. That post-partum hæmorrhage, after complete contraction of the uterus, and, therefore, after the uterine sinuses have been emptied of blood, is arterial.

2. That when a solution of the perchloride of iron is injected into the uterus, the sinuses take it up and carry it into the veins, the surrounding tissues becoming stained.

3. That the perchloride of iron does not produce contraction, nor, by coagulation of blood, blocking of the orifices of the uterine arteries.

4. That the application of this styptic to the cavity of the puerperal uterus is not innocuous.

At a subsequent meeting, Dr. Snow Beck, who had never used such injections, but knew of some fatal cases in the practice of his friends, labored to show that, owing to the comparative isolation of the uterus from the general system, remedies, applied to induce contraction of the gravid uterus, do not act through the medium of the cerebro-spinal nervous system (reflex action), but that ice, kneading the organ, &c., are almost entirely local stimulants of the uterine tissues; that the arrest of uterine hæmorrhage does not in any way depend upon the formation of coagula in the canals of the bloodvessels, and that, in consequence of these facts, the injection of perchloride of iron is not only utterly futile, but also dangerous, from its liability to cause septicæmia and death. To these *à priori* arguments, Dr. Barnes replied by denying the truth of Dr. Beck's facts; he asserted that the injection of iron into the uterus did unmistakably evoke reflex action, and that it also coagulated the blood, and corrugated the internal surface of the uterus, by all of which methods the flow of blood is checked. He based his views upon practical experience at the bed-side, where he had often arrested post-partum hæmorrhage by iron injections, when every other means had failed. Many successful and a few fatal cases were reported by a number of the gentlemen present. Dr. Smith closed the discussion by stating that the lesson he had tried to deduce was that, though the intra-uterine injection of iron might be a suitable remedy in cases of primary hæmorrhage, it was not so in secondary.

In the next number of the same journal (vol. i., No. 2), Dr. Playfair gives a very interesting account of a case, in which he considers that, although the patient had septicæmia and barely escaped with her life, she would certainly have died during labor, if he had not employed this styptic. He emphasizes the importance of washing out the hardened coagula caused by the iron, before they decompose and are absorbed.

Dr. A. B. Steele (*Ibid.* i. 3) testifies to the happy action of these injections in some of his patients. He is disposed to think that the iron does not act as a direct styptic, but, rather, as a "reflex-excitor of the incident nerves of the walls of the uterus." He puts the question very strongly, whether we shall allow the patient to bleed to death before our eyes, rather than employ means that will certainly save her, but may subject her to a possible future risk. He lays stress upon the importance of removing all coagula or retained portions of the placenta, before injecting the fluid.

Dr. T. E. Williams claims (*Ibid.* i. 9) to have had seven cases, in which he is satisfied that the use of perchloride of iron was the means of saving life. In one of these, the arrest of the hæmorrhage was clearly attributable to the uterine contractions, excited by the injection, while in another it was quite as evidently due to the hæmostatic and styptic properties of the iron, for the uterus remained soft and relaxed, though the bleeding ceased.

As the matter now stands, the injection of a strong solution of liquor ferri perchloridi fortior into the uterine cavity seems to be not only justifiable in primary post-partum hæmorrhage, but to be, in reality, the only means we possess of checking the flow where ergot, kneading the uterus externally, and the introduction of cold water, ice, or the operator's hand into the uterine cavity, prove ineffectual.

[To be concluded.]

Translation.

ON THE NECESSARY ALTERNATION IN THE INTENSITY OF DISEASES AND IN THE VALUE OF PREVENTIVE MEANS, SUCH AS VACCINATION.*

The diminution of the efficacy of vaccination as a preventive of smallpox has been a subject at first of disbelief and then of astonishment with the medical world, and even with the whole public. The causes have been sought in the nature of the vaccine, but it has not yet been proved that taking the matter for inoculation anew from the bovine species has restored the primitive protecting power.

Without wishing to deny to the profession the possibility of discovering an explanation drawn from their own province, that of medical and physiological facts, I wish to point out a consequence of the fundamental law of *heredity* as applicable to the phenomenon in question. The better to understand its force, it is well to call to mind a fact with regard to epidemics.

Medical history shows, in the case of epidemic or contagious diseases, a considerable mortality during the first periods of their appearance, followed by a diminution which goes on slowly from generation to generation. In our day, the epidemics of cholera morbus have diminished in frequency and intensity within a short period. Previously, syphilis and smallpox, two infections of different natures, both in themselves and in their modes of transmission, had offered the same phenomena, to wit, extreme intensity at the outset, diminution from age to age.

If this course belongs to the nature of diseases, populations infected for the first time in the nineteenth century would be less decimated than those infected in previous centuries. But it is not so. When a savage population has recently for the first time encountered smallpox, it has suffered as severely as Europeans did when the disease first appeared in Europe. It is the fact of the invasion of a new territory that renders epidemics destructive, and a little reflection will easily show why.

When an epidemic falls upon a people for the first time, most of the persons disposed to receive its effects are attacked. It destroys a large number. The subsequent births are from persons who have not been attacked, or at least have survived; that is to say, from persons better fitted than the others to resist the disease in question. In virtue of the ordinary resemblance of children to parents, the new generation will be less disposed to suffer from the disease. We shall have, then, a diminution or a momentary disappearance; probably, I presume, a diminution, because the resemblance of children to their ancestors [what is called atavism] is not very rare, and tends to revive certain forms or certain physiological dispositions in families. After two or three generations, this special cause of the return of the disease shows itself but slightly, the resemblance to a great-grandfather or a great-

* A chapter from a French work recently published, entitled: Histoire des Sciences et des Savants depuis deux Siécles, suivie d'autres études sur des Sujets scientifiques, en particulier sur la Sélection dans l'espèce humaine. Par Alphonse De Candolle. Genève. 1873.

great-grandfather being more rare than to a grandfather; but by this time the whole population will not have been exposed by itself, or through its fathers, to the disease in question, or it will have been exposed very slightly. Thus arises anew, by the very rarity of the affection, a proportion of individuals who have not been submitted to proof, or whose parents have not been submitted, individuals among whom the disease will rage and the selection again begin to operate.

The force of things brings about, then, a variation in the intensity of each disease, unless it be an affection which rarely kills, or which falls principally upon the aged. The more a disease decimates the young, the more rapid is the process of selection, and the more promptly is a diminution brought about. If a first invasion destroys, for example, half the population below the marriageable age, the survivors ought, in their physical or physiological conditions, to be very little favorable to the invading disease, and their children will profit by the immunity. If the disease is less fatal, the weeding out will be less.

Hence, we see, I do not say the cause, but a cause, why many of the pests and other very grave affections strike populations at intervals, and are, as we say, epidemic, while certain less grave diseases, even among those which attack the young, prevail from year to year more continuously.

Such are the clear laws, we may add necessary laws, which govern the aggravation or diminution of diseases, independently of all other natural circumstances. Doubtless, there may be other physical or physiological causes, and physicians may discover preventive or curative means which may have an influence, but the incessant effects of heredity and selection none the less exist, and when other influences are not shown to be present, we may be sure these play their part.

We see, now, why the efficacy of preventive measures, such as vaccination, must also vary.

When Jenner discovered vaccine, smallpox had lost, in Europe, something of its primitive intensity. The populations there existing were descendants, for several generations, of those who, in consequence of selection, were able tolerably well to resist an epidemic. This indicates that these individuals were not as readily attacked as at first, or that the attacks were less fatal, or, again, if they did not die, rarely contracted the disease a second time. It was admitted that inoculated persons were protected from a second attack; the dangerous practice of inoculation would not have been continued were it not for this opinion. Vaccination, then, was introduced at a time when the European population was in an ameliorated condition with regard to smallpox epidemics. Practised with zeal, it rendered smallpox very rare. But precisely because it had become rare in the generation which followed Jenner, we find that a majority of this generation is of persons who have never been exposed to the epidemic, and among this number are those who naturally, or from atavism, are disposed to receive the variolous infection. Hence a certain recrudescence which vaccination does not easily control.

In other words, after two or three vaccinated generations, the European population, having been slightly exposed to smallpox, approaches the conditions of a population which smallpox invades for the first time. The shock is not so severe, but it is sensible. All the means of resisting it which have sufficed for fifty years may now become less efficacious.

We may conclude, generally, that heredity and selection ought to produce an alternation of intensity in diseases. The alternation should be the more marked as the disease in question is more fatal, and more particularly attacks the young. Finally, the preventive or curative measures which may have sufficed in the periods of diminution must lose a portion of their efficacy in the period of aggravation, particularly as regards vaccination in its relations to smallpox.

The works of Darwin being now generally known among physicians, it is probable that many of them have thought of the effect of selection on variation in the severity of diseases. I doubt, however, if they have paid attention to its consequences relative to vaccination. Hence, I have been induced to make this, perhaps new, application of the ideas of the celebrated English naturalist.

Bibliographical Notices.

The West Riding Lunatic Asylum Medical Reports. Edited by J. Crichton Browne, M.D., F.R.S.E. Vol. iii. London: Smith, Elder & Co. 1873. Pp. vi., 349.

The present volume of Reports is larger than either of the preceding, and contains several valuable papers, deserving of special notice. In the preface, the hope is expressed that the volume will be received as a proof that the medical officers are earnestly endeavoring to avail themselves of the vast opportunities which the Asylum affords to give breadth and precision to our knowledge of mental diseases. Certainly, if future reports show the same amount of well-directed work which this one presents, the profession will have cause to rejoice that such excellent use is made of the materials. We hope that similar institutions in this country will enter upon the same course, and that the material for the study of mental and nervous diseases which is now lost will be utilized.

I. The first paper is on *the Convolutions of the Human Brain considered in relation to the Intelligence.* By William Turner, M.B. The author considers the mass and weight, the external configuration, internal structure and vascular supply of the brain. He finds that the size and weight of the brain do not give an exact method of estimating intellectual power, that the configuration of the convolutions is not of itself a guide. He thinks the internal structure is more to be relied upon, not merely the size of the cells and their relative numbers, but, also, and perhaps still more, the internal association of the different convolutions one with another by commissural fibres.

II. *Experimental Researches in Cerebral Physiology and Pathology.* By David Ferrier, M.D. This is the full account of the author's experiments, a brief abstract of the conclusions resulting therefrom having been published in the *British Medical Journal.* The more important points have been already noticed (see Journal, July 24, 1873, p. 80).

III. *Observations on the Histology of the Brain in the Insane.* By Herbert C. Major, M.B. Several cases are detailed with the microscopic appearances found in the brain. Changes were found in both vessels and cells in chronic brain wasting, senile atrophy and general

paralysis. In every case, he found important morbid changes, but was not able to point to any which, by their presence or absence, will, in the three forms of disease considered, mark infallibly the nature of the affection. He looks forward with confidence to a time when this can be done.

IV. *The Heart-sounds in general Paralysis of the Insane.* By J. Milner Fothergill, M.D. Distinct accentuation of the aortic second sound was noted in forty-four out of fifty-five patients affected with this form of insanity. By accentuation, he means "such an increase in the sound as made it at once audible, and distinctly so, over the right costo-sternal articulation." All doubtful cases were rejected. No distinct hypertrophy of the heart was found, no valvular disease seemed likely to be present. It seemed, then, that the accentuation must be due to increased vascular area. This is found only in the cerebro-spinal system; hence the aortic valves are closed by a larger and, therefore, heavier column of blood *above* them. Examining, then, five cases of sub-acute mania, it was found that the second sound was loud and full when upright, less so when lying down; the sound was harder than in general paralysis. Several cases of general paralysis were then reëxamined to detect the effect of position. In five out of nine, the sound was affected by posture. In six new cases, the second sound was affected in four. His conclusions are:—1. That in general paralysis and in other conditions of cerebral hyperæmia, the heart's aortic second sound is usually accentuated. 2. That there is evidence pointing to the conclusion that this cerebral hyperæmia is connected with the peri-vascular lymph spaces. 3. That a species of antagonism would appear to exist between heart disease and insane conditions, associated with hyperæmia, and manifesting mental exaltation.

V. *On the power of perceiving Colors possessed by the Insane.* By T. W. McDowall, M.D. After a general review of color-blindness, the author's investigations are recounted. About one hundred and twenty skeins of worsted were spread on a white tablecloth, and the patient was asked to pick out a skein or two to match one held in the hand. The slight degrees of color-blindness were not noted. Of four hundred and thirty-eight women, suffering from epilepsy, general paralysis, dementia, cerebral atrophy, chronic mania, mania, recurrent mania, melancholia, monomania, acute mania, &c., the answers of 114 were rejected on account of the mental condition, either dementia or excitement being so great that their color-blindness might, it was thought, be thereby accounted for. Of the 324 remaining, 9 were evidently more or less color-blind; 302 men were examined; 82 refused to answer or were too demented or excited for their answers to be received; 13 were more or less color-blind.

VI. *Nitrite of Amyl in Epilepsy.* By J. Crichton Browne, M.D. A striking contrast was found between the susceptibility of general paralytic and epileptic patients, in regard to susceptibility to the action of the nitrite of amyl, the latter being much more strongly affected. By causing epileptics, who had daily attacks, to inhale the drug about the time the attack was expected, it was found that the fit was averted. Good results were also obtained in the status epilepticus, eight patients out of ten recovering after the nitrite was used. This brief summary is far from doing justice to the paper. Cases are reported in full, with the result of the administration of the nitrite, both

by day and by night; also cases in which it was withheld where it had, at first, seemed to avert the fit, and the fit came on.

VII. *Observations on the Localization of Movements in the Cerebral Hemispheres, as revealed by Cases of Convulsion, Chorea and "Aphasia."* By J. Hughlings Jackson, M.D. This paper contains a recapitulation of the author's views in regard to convulsions in their pathological and physiological relations, and a plea for the study of such cases, not as instances of certain so-called diseases, but from such a standpoint as to discover the relation between one-sided paralysis and one-sided convulsion, between these and different defects of speech.

VIII. *On Electro-excitability in Mental and Nervous Diseases.* By John Lowe, M.B. The experiments described in this paper were undertaken in hopes of elucidating the diagnosis between various forms of mental and nervous disease in their earlier stages, and in cases of an obscure character. After describing the machines used and precautions taken to obtain accurate results, tables are given, showing the electro-excitability of muscles in sane men and in certain cases of insanity. In cases of general paralysis, chronic disorganization of the brain and locomotor ataxy, in which the power of locomotion was affected to such an extent as to prevent the patient walking without assistance, the electro-contractility of the muscles of the legs was impaired or altogether gone. The muscles of the face and arms, in these cases, responded readily to the electric stimulus. In progressive, muscular atrophy, the electro-muscular contractility was diminished according to the extent of the disease.

IX.—*Heart Disease and Insanity.* By J. Wilkie Burman, M.D. The object is to discover whether such statistics as can be employed show any general causal relation between heart disease and insanity. For this purpose, he inquires whether the two diseases are increasing in frequency *pari passu*, and concludes that heart disease is increasing rather more rapidly than insanity. Next, he inquires as to whether those parts of England and Wales in which there is a larger proportion of cases of heart disease, yield a larger proportion of insane people, and finds a very striking and remarkable relation between the two diseases. The third point investigated is as to whether heart disease is more frequent in asylums than out of them. He finds that, as a cause of death, heart disease acts with about equal frequency in the sane and insane. Leaving, then, the comparison of the sane and insane, the author considers the latter class only, and records the results of post-mortem examinations. Of 500 cases examined, in 241 the heart was above the average healthy standard. In 105, there was valvular disease; in 31, aortic; in 14, excess of external fat; in 10, pericardial disease; in 9, coëxisting disease of kidney or lungs; in 72, no heart, aortic, or other than cerebral disease. In 44 cases, where the heart was not above the average weight, there was valvular or aortic disease. Among the living insane, of 450 women, 91, or 20 per cent., showed signs of heart disease; of 680 men, 156, or 23 per cent., showed signs of heart disease. In 144, or 21 per cent., there was hypertrophy without murmurs. In general paralysis, the replacing murmur was basal diastolic in 4 out of 6 cases. This is interesting as compared with the statements made by Dr. Fothergill. The forms of insanity with which heart disease is most commonly associated are hypochondriacal melancholia, that particular form of chronic mania

termed monomania of suspicion, and such modified forms of general insanity as those in which the patients are sullen and morose, or impulsive.

X. *Notes on the condition of the Tympanic Membrane in the Insane.* Part I. By John C. Galton, M.A. Our notice is becoming so extended that we will only give his third conclusion. "Many more comparative observations upon the sane and the insane, and further experiments as to the action of drugs . . . . . before that such conclusions will have much value."

XI. *On the obscurer Neuroses of Syphilis.* By T. Clifford Allbutt, M.D. Intellectual and emotional disorders, sleeplessness, motor defects, as tremor and muscular debility, neuralgia and nutritive defects are considered. Several interesting cases are reported.

XII. *The Weight of the Brain in the Insane.* By W. Crochley S. Clapham, Esq., L.R.C.P. This paper is so completely statistical, drawn up from the examination of 716 cases, that an abstract, or even conclusions from it, would be unsatisfactory. The average weight of the whole brain was 46.285 ounces; males, 48.149 ounces; females, 43.872 ounces.

XIII. *The Change of Life and Insanity.* By Henry Sutherland, M.D. Change of life is not usually the cause of insanity; the age of attack is about 45 years, and this occurs at an interval of one year from the menopause; married life does not predispose, nor the number of children; melancholia is the more common form, more rarely, mania. A certain group of symptoms are diagnostic, and the prognosis is favorable; the duration is usually more than three months, and less than three years.

XIV. *On the Anatomical, Physiological and Pathological Investigation of Epilepsies.* By J. Hughlings Jackson, M.D. This paper is rather rambling, and without sufficient logical sequence to be easily summed up. The mode of onset of epilepsy is considered, beginning in the hand, the face or tongue, or both, or in the foot. Each of the three varieties is supposed to depend on the discharge of gray matter, those being in the hand on the discharge of a part of the cerebrum where the hand is largely represented in movements, &c.

Epilepsy is defined as "*the name for occasional, sudden, excessive, rapid and local discharges of gray matter*" (Italics are the author's). "The following are epilepsies:—(1) A sudden and temporary stench in the nose, with transient unconsciousness. (2) A sudden and temporary development of blue vision. (3) Spasm of the right side of the face, and stoppage of speech. (4) Tickling of the index finger and thumb, followed by spasm of the hand and forearm. (5) A convulsion almost instantly universal with immediate loss of consciousness. (6) Certain vertiginous attacks." He, very properly, we think, looks upon loss of consciousness as merely one of the phenomena of epilepsy, often, indeed, present, but by no means necessary.

We have given, perhaps, too long a summary of the papers in this report. It will be seen that nearly all are simply a collection of facts, with a few simple conclusions drawn therefrom. The good use to which the material has been put is one of the most marked features. When will any of our institutions be able to show such an array of post-mortem examinations and careful investigations?

S. G. W.

Boston Medical and Surgical Journal.

Boston: Thursday, February 19, 1874.

We called attention last week to the fact that an indecent exhibition got up to excite prurient imaginations was prevented by the executive officer of this city several months ago. For this he deserved and received the thanks of the decent part of the community. We notice that one of our daily newspapers, to whose title the adjective *respectable* has hitherto been prefixed, has been represented at a "private opening" and admires the unremitting work of nine months upon the new "Museum of Anatomy!" *O tempora, O mores!*

The subject of cremation is at the present time occupying considerable attention in some parts of Europe, and as a matter of sanitary importance it is likely to obtain more thoughtful consideration than it has hitherto received. Christian nations have become so accustomed, from both precedent and precept, to inhumation as the only desirable method for the disposition of their dead, that the mere suggestion of any other mode is to most persons repulsive and shocking. Yet the process of cremation of a dead body, on the one hand, and of its gradual decay after inhumation, on the other, are in reality similar, except in the element of rapidity; and the results of either process are, in their chemical composition, identical.

The slowness of decomposition after inhumation, and the crowding of certain localities with bodies, may exert an influence deleterious to the health of the living. Both air and water may be so charged with the products of the decay of corpses as to become unfit for the support of animated life, and it has been asserted in the case of two Italian villages, whose cemeteries were, to all outward appearances, favorably situated as regarded the health of the people, that a frightful epidemic prevailed because the springs, from which their drinking water was obtained, were supplied by the rain-water which fell on the cemeteries, and became charged with the organic products of the decomposition of human remains.

For several years past, a number of Italian physicians have been engaged in experiments regarding cremation, convinced that the only way to escape the evil results of inhumation is to adopt the process of burning the dead. Drs. Polli, Brunetti, Gorini and Pini have devoted much attention to the details of cremation, and the last named physician assisted at the funeral rite of an Indian prince, whose body was burned on the banks of the Arno. Although the process was similar in its details and result to such as are constantly witnessed in

India, yet the procedure was too slow, and the expense of the precious woods, resins and oleaginous substances too great to permit of their general adoption by western nations.

Dr. Polli, by experiments upon the bodies of dogs at the gas-works of Milan, has shown the possibility of cremation of bodies in retorts by means of coal gas.

Dr. Brunetti sent to the Vienna exhibition samples of apparatus with which he had successfully practised cremation of the human body. By means of his apparatus, with 160 or 180 pounds of wood, complete cremation was accomplished in two hours or more. A body weighing 114¾ pounds was reduced to less than four pounds.

The processes of both Drs. Polli and Brunetti are, however, slow and costly. That of Dr. Gorini is not open to the former of these objections. He makes use of a substance whose composition is not known, but it is, probably, a mixture of caustic soda, with nitre or chlorate of potash, which is melted in a crucible at a very high temperature. When a portion of a human body was thrown into the liquid it was immediately enveloped in flames, and a limb was completely destroyed in the space of twenty minutes, the volatile part disappearing in the form of gas, while the solids remained as ashes at the bottom of the crucible.

The Medical International Congress, held at Florence in 1869, and also the Congress at Rome in 1871, voted that "every possible means should be employed to obtain legally, in the interest of the laws of hygiene, that the incineration of bodies should be substituted for the present system of inhumation." The Royal Institute of Science and Letters of Lombardy has offered, for 1877, a prize for the purpose of obtaining a method of cremation of dead bodies, such as may be substituted for inhumation, which shall be free from inconvenience, expeditious, economical, "and of a nature to respect civil usages and customs, and the proprieties of social life."

We are indebted for our facts regarding cremation to an interesting and extended article in the *London Medical Record* of Jan. 14, 1874.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, February 7, 1874.)

OPERATIONS were performed in the following cases:—Frost-bitten Fingers, Needle in Hand, Sinus of Arm, Gun-shot Wound of Hand, Fracture of Femur, Talipes Varus, Lacerated Wound of Finger, Abscess of Hand. During the week, Abscess of Face, Railroad Injury of Leg.

Frost-bitten Fingers.—Sloughing had exposed the extensor tendons and second joints of all the fingers. Dr. Cabot amputated at the line of demarcation on both hands.

Needle in Hand.—Extracted.

Sinus of Arm—in a boy four years old. It was laid open and explored for dead bone by Dr. Cabot. None detected.

Gun-shot Wound of Hand—four weeks ago, from a pistol, penetrating the hand. The bullet was unsuccessfully searched for immediately after the accident. The opening extends across the back of the hand. A counter opening was made, and, incidentally, the bullet was again looked for, but not found.

Fracture of Femur—in a child twenty-four days old. It occurred during delivery, and the bone had united, but with considerable bowing upward. Dr. Cabot applied direct pressure at the point of fracture until the femur corresponded with the one of the opposite side. Straight splints were then applied.

Talipes Varus—in a man twenty-two years old. One year ago, the tendo Achillis and plantar fascia were both divided. Now, the patient can walk on the sole of his foot, though slight inversion and a few tight bands of plantar fascia remain. The latter were divided subcutaneously.

Lacerated Wound of Finger—in an adult, of six weeks' standing. Sloughing of the soft parts had occurred, exposing a necrosed flexor tendon and phalanges. Amputated at the metacarpo-phalangeal articulation.

Abscess of Hand—following a contusion received two months ago. The hand and fingers were thickened and stiffened by continued inflammation. Two abscesses were opened.

Abscesses of Temple—in a man twenty-two years old. Six months ago, pain commenced in the left temporo-maxillary articulation on opening the mouth. It increased, so that the patient was compelled to use liquid diet only. Three months later, an abscess formed near the angle of the jaw. It was opened, and a carious tooth, which seemed to be the cause of the trouble, was removed. During the past three months, the cheek overlying the joint has become indurated, and there has been neuralgia of the inferior dental nerve. Recently, an abscess has formed above the ear. Dr. Hodges opened this, and afterwards pulled an upper molar tooth; pus followed the extraction, and has continued to discharge into the mouth since.

Railroad Injury of Leg.—A man with a compound, comminuted fracture of both bones and extensive laceration of the soft parts. Dr. Cabot amputated just above the knee-joint by the circular method.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE more interesting of the surgical operations last Friday, February 13th, were as follows:—

A Scirrhous Tumor, involving the axillary glands and filling the axillary space completely, was removed by Dr. Cheever. The patient was a woman forty years old. The disease was secondary. Eighteen months ago, the breast was removed for scirrhus. Ten months ago, the consecutive disease of the glands appeared. One month ago, the tumor in the axilla was two thirds its present size and was movable; at present, it is comparatively fixed, is quite painful and appears of the size of a large orange. The cicatrix has not been affected by the disease.

The tumor was exposed by the dissection of an elongated flap from above it, the base of the flap being at the upper part of the axillary space. The dissection of the growth extended deeply and laid bare the axillary artery about an inch in extent.

The edges of the wound were apposed by sutures anteriorly; while posteriorly they were left open to allow drainage and irrigation.

Dr. Thorndike performed Re-amputation of the Thigh. The primary amputation was in consequence of a compound and comminuted fracture of the leg just below the knee, with extensive contusion and laceration of the soft tissues above the knee. Though the flaps were ample to cover the stump at the time of the operation, their bruised condition caused them to give way and slough, leaving now a conical stump, with the end of the femur protruding under the skin. The patient had been greatly reduced by his injuries

and by five attacks of secondary hæmorrhage, after the amputation, but he was now in excellent condition.

The end of the bone was exposed by dissecting away the soft parts of the stump, and three inches of the femur were removed.

Dr. Cheever performed a Plastic Operation for the relief of the deformity caused by the Vicious Cicatrix of a Burn. The patient was a young man of seventeen years. The burn was received when he was four years old. At the age of nine years, the patient was operated on by the late Dr. J. Mason Warren, but the relief obtained was only temporary, in consequence of the neglect of the boy to carry out the incidental treatment. The contraction has continued progressively, until, at present, the deformity is very marked. The entire front of the chest is covered with cicatrized skin. From the upper part of the sternum, a band of cicatricial tissue, four inches in width, extends upward. This contracting band has drawn the chin down upon the breast, everting the lower lip, distorting the lower jaw and the lower incisor teeth, and pulling upon the cheek, the lower eye-lid and the lobule of the ear. At about the middle of this band, the finger can pass a considerable distance beneath it on each side, as if the cicatrix did not involve the underlying skin of the neck.

Dr. Cheever divided the cicatricial band transversely at its centre; he then found that the scar included not only the skin, but the subjacent parts quite deeply, so that when all the offending tissue had been divided and the chin set free, an exposed surface, extending from the chin to the top of the sternum, and laterally from one angle of the lower jaw to the other, was the result. To cover this denuded space, Dr. Cheever took a flap of skin from the side and back of the neck under each ear, sliding it forward and leaving the consequent raw surface posteriorly to heal by granulation. Though the flaps were liberal, there was still left in front an uncovered space three inches wide and six inches long, which it is proposed to cover by a secondary plastic operation, taking the flap from the arm of the patient. The edges of the wound were closed by silver-wire sutures.

Dr. Wadsworth performed Iridectomy in the case of an adult patient who had had an ulcer of the cornea with large cicatrix in consequence. The iris was adherent to the cornea, except at the upper segment, where the pupil was free. Dr. Wadsworth performed iridectomy upward, giving improved vision. The white cicatrix he proposed to remedy by tatooing.

A Cystic Tumor of the Breast was removed by Dr. Cheever. The disease was the result of a blow upon the breast ten years ago. The part was greatly enlarged, the skin thinned and blue, the nipple retracted. On removal, the growth was as large as the head of a child a year old. It consisted of a single cyst, containing a dark chocolate-colored fluid and some broken-down clots. At one part of the cyst internally, was a proliferated growth, of the size of an English walnut.

Other operations, not reported in detail, were as follows:—

Removal of a Fatty Tumor of the Neck, Tenotomy for Talipes Varus, Radical Cure of Hydrocele (two cases), Operation for Phimosis, Division of Fistula in Ano, and Removal of a Glandular Tumor, by Dr. Thorndike; Removal of Ingrowing Toe-nail by Dr. Cheever; and Removal of a Tumor of the Eye-lid by Dr. Wadsworth.

CARNEY HOSPITAL.

During the past few weeks, there have been a number of interesting operations at the hospital, as follows:—Dr. John Homans Amputated the Glans and Prepuce on account of syphilitic disease, of three years' standing. The patient had lost his uvula and part of the soft palate, and, for about seven months, had been treated at the Dispensary for an obstinate perforating ulcer behind the corona. Micturition was painful, and the stream small; he could not bear dilatation by bougies. After etherizing the patient, Dr. Homans passed a straight, metallic catheter into the urethra, and then entered the knife between this and the body of the penis. The catheter was

then withdrawn, and the urethra divided about half an inch anterior to where the penis was to be amputated; this was to allow for retraction. After amputation, it was found that the ulcerating abscess had encroached upon the urethra about an inch and a half from the meatus; this accounted for the intolerance of bougies, and the difficult micturition.

Wood's operation for the radical cure of Hernia was performed by Dr. Homans on a boy two and a half years old. The hernia was indirect, and the tumor extended down between the knees. The operation was done on January 7th, and has not been successful.

A case of large burrowing abscess in the left buttock and ischio-rectal space was freely laid open, and is doing well.

On January 22, Dr. Homans removed a Tumor, the size of an English walnut, from the region in front of the inner side of the internal condyle of the left humerus in a man aged 28. As it was intimately connected with the muscles, nerves and vessels of the neighborhood, a careful dissection was required. The tumor proved to be a fibroma.

Dr. Homans also Amputated the little finger of a man, on account of a bite received in a fight. The operator remarked that there seemed to be something poisonous about the bite of a human being, and he had seen several fingers and thumbs lost in consequence.

On February 2d, Dr. Homans tied the Femoral Artery at the apex of Scarpa's triangle for Aneurism of the popliteal. An incision was made over the course of the vessel, the sartorius muscle lifted, an opening in the sheath, just large enough to admit the aneurism needle, made, and the vessel tied. All pulsation ceased at once in the tumor. A more detailed account of the case will be furnished in a later number of the JOURNAL.

Correspondence.

MEDICAL OVERSIGHT OF SCHOOLS AND SICKNESS-RATES.

MESSRS. EDITORS,—Before answering the questions of Dr. Greene, in the JOURNAL of January 22d, I would like to say that, in an article on "School Hygiene," by Dr. Frederic Winsor, of Winchester, prepared for the Fifth Annual Report of the State Board of Health, and now in press, it is recommended that the public schools be supervised by a medical man. Dr. Winsor proposes that a physician, acting under the authority of the town board of health or the school board, visit all public schools and report their sanitary condition to his employers, and that he be paid for his services. I have not Dr. Winsor's words to refer to, but his plan includes the supervision of ventilation and warming, the admission and arrangement of light, the inspection of privies, the position of the children, and similar modes of preserving health. It would also certainly allow of the exclusion from school of all children who could communicate disease to others. But beyond this point a medical officer could not go. Although, for the public safety, he might protect the children while at school, he would have no right to concern himself with their individual ailments, and when they go home the care of their health certainly devolves upon their parents and such medical advisers as they may choose. However it may be in England, and whatever the *Lancet* may think, the professional visits of a public medical officer at the patients' homes would not be tolerated with us.

I do not think we can reasonably expect to get sickness-rates through school records.

To determine whether absence from school for alleged illness is really due to that cause seems to me impracticable. To determine the kind of illness is out of the question. The opinions of teachers or school committees would have no statistical value. The prevalence of epidemics in schools might be ascertained in a general way through the reports of teachers, and this would, perhaps, be some addition to our present knowledge of these influences in towns and cities.

I can think of only one way to get "sickness-rates," and that is, by careful observation of the whole population in small towns by physicians who know the state of health of every family, and this plan would require the comparison of a large number of such towns for several years.

Very respectfully yours, GEORGE DERBY, M.D.

LETTER FROM RUSTICUS.

DOWN EAST, January 31, 1874.

I SUPPOSE, MESSRS EDITORS, from seeing that somebody alludes to my letters in his, that somebody reads them. This is very well, and leads me to write again. At the same time, I wish Mr. Somebody wouldn't say that Rusticus confesses that he is losing faith in all medical treatment; for Rusticus hasn't made any such confession, and he knows, full well, that medical treatment has great power, and will kill or cure, according to circumstances. Rusticus, it is true, thinks that a great deal of medicine is thrown away, by being put into stomachs, and that it would be as well to throw some of it away at first. He remembers, very well, the style of practice when he was a student. He used to see a physician from a neighboring town, who gave quantity, quality and variety. To leave the third person and take the first, *I* remember Dr. Short, who used to come to our place to see Mrs. Anæmia about every week, and in the afternoon, or the next day, Mr. Anæmia used to go to Dr. Short for the medicine. There were never less than from four to six bottles went with him; not vials—bottles. There was the alterative, the emmenagogue, the tonic, the carminative, the deobstruent—for he used all these words—and occasionally a cathartic, with perhaps an emetic. Well, somehow she lived, though she took one thing before and another after meals; one on rising and one on going to bed, for sometimes she got a narcotic, also.

Such medication as the above, I long ago lost confidence in. It wasn't a peculiar case, that of Mrs. Anæmia and Dr. Short. All doctors did very much the same once, and within a very few years. See how well some folks get along without medicine. Our friends say, "Such a man might have been saved, perhaps, if he had had a dose of physic," *Perhaps.* "Such a man would at any rate have suffered less." No doubt of it, and Mrs. Anæmia would have suffered less if she hadn't had any medicine at all. All that I wish to charge upon my younger brethren is, that they should draw proper inferences after their physic. The Scotch, I believe, have a verdict of "not proven," as well as "guilty and not guilty."

But, there's no use in my writing this, perhaps. I say it every day. My habit is, to say a man don't need medicine when I think so. If I think he does need it, he gets it.

How much one can learn from outsiders. At the cabinet maker's shop, in our town, when a man cuts himself, he just daubs one side of a cedar shaving with glue and winds it round his finger. Over at a neighboring shop, they use a piece of wash-leather in the same way, and I have found that simply winding a bit of tape snugly round does just as well. If you begin at the tip of the finger and wind back, it squeezes the blood back, and after a day or so, if you take off the tape, you'll often find it well healed. A pretty good jet from an artery, in a finger, you can stop in this way, and I have seen a spirt from the radial stopped entirely by raising the arm perpendicularly. Bad way to carry it, but my patients, or a good many of them, know how to do it, till the doctor comes.

Children will pick off scabs and make the blood run. You've no idea, unless you've tried it, how well you can stop a pretty large oozing by a piece of a country newspaper put over the spot. I almost always carry some filtering paper in my case; or some of the thick paper which we use for blotters. They all work well, but the last is the best, being more porous. As Mrs. Freckles says, "Cobwebs is nothing to it." But the first thing to teach your patient is, that water won't run out of a hole which you can cover with your finger, so long as you keep your finger over it. No more will

blood. But if you keep pulling your finger off to see if the water will run, what then? Why, it runs. So will blood. What then? Why, keep your finger on till the doctor gets there. Yours truly, RUSTICUS.

TANNATE OF QUINIA.

MESSRS. EDITORS,—In reply to your correspondent "Inquirer," I think there is good ground for stating that the tannate of quinia is comparatively tasteless, because comparatively insoluble, but that it is not absolutely so. In Kerner's experiments (*Archiv für die Gesammte Physiologie*, iii.), he found that while muriate of quinia, injected subcutaneously, made its appearance in the urine in fifteen minutes, and the sulphate rubbed with sugar and given by the mouth in forty-five, the tannate appeared only after three hours, and then in small quantity. The kinovate of quinia, which is probably the salt actually existing in the bark, was as slowly, but rather more completely, absorbed, while the alkaloid in kinovate of quinidia and in the powdered royal cinchona bark did not appear until even later. It would be fair to deduce from this the rule that if quinia is given either for its local action in the stomach, or in order that it may be absorbed rapidly, or in large quantity, the tannate is a highly ineligible form of administration. It is true of quinia, as of many other substances, that comparative insolubility or "incompatibility" out of the body does not prove inertness in the intestinal canal. Where, however, the amount of the drug to be present in the blood at a given time is of consequence, as in the present case, the form of administration should be carefully considered.

Whether the tannic acid of coffee differs in its action upon quinia from the officinal drug, I do not know. E.

LINE OF DULNESS IN PLEURITIC EFFUSION.

LAWRENCE, January 23, 1874.

MESSRS. EDITORS,—I was greatly interested in the remarks of Dr. Ellis on the line of dulness in pleuritic effusion, reported in your JOURNAL of January 1, 1874. I have, in quite a number of cases, noticed resonance and the respiratory murmur much lower down the back than at the sides, but had never observed the curve. Since reading the remarks of Dr. Ellis, I have made some experiments with the lungs of animals in vessels of water, and, I think, I am able to explain the "curved line of dulness."

If partially inflated lungs be carefully let down into a vessel of water, with the trachea held perpendicularly to the surface of the fluid, and efforts be made to immerse them therein, it will be seen that the greater weight of water to an equal bulk of the lungs (3 to 1) will cause the lobes to float out laterally, while their thin borders will be turned upward. If now, the lungs be lowered into a partially filled jar of water which has a capacity to receive them without depriving them of their latent air, so to speak, it will be seen, as they are gradually sunk, that the thin lateral and anterior edges of the lobes are rolled *inward* upon the concave surface of the lungs.

Now the lateral and anterior borders of the lobes of the lungs are much thinner than the posterior parts of the same. Moreover, the air-cells of the thin borders are larger than those in the interior of the lobes, the intervening septa are less abundant, and, consequently, the lung tissue is lighter and more flexible at its edges than elsewhere, and not only floats more readily, as shown above, but collapses from less pressure than the parts having smaller cells, thicker and more abundant septa, firmer bronchioles, and lobular bronchial tubes.

As an inevitable result, therefore, we should infer that any fluid effusion in the chest, unrestrained by adhesions, would assert its power first over those parts of the lung which are weakest, and we should expect to detect its presence in those regions where the lung tissue must yield first, viz., at the sides.

My experiments further show that the thin edges of the confined lung tend to roll *inward* as the increasing fluid advances on them, so that we may say, in general terms, that the fluid tends to mould the lungs into a globular form,

as the uterus first moulds the child before it can expel it. When the lung is so far moulded that it presents a force equally resisting in every direction to the advancing fluid, the latter will then assume a hydrostatic level, as it has no encouragement to drift in one direction or the other, and percussion will announce a *horizontal line of dulness.*

If the effusion could recur in one day and recede upon the following day, we should expect the same phenomena to be accurately repeated in the inverse order; as is well known, however, a lung which has been compressed for any length of time by an effusion shows great reluctance in assuming its normal condition. It inflates slowly and imperfectly for a long time after the effusion has existed, and therefore the original curve would hardly find a reflexion of itself in the resolving curve.

I am confident that my experiments are very rudimentary, and do not meet the conditions of a lung pendant in the thorax, but I shall be content in presenting this article if it may serve merely as a hint and invitation to others to further prosecute the investigation of the subject.

I believe the observations of Dr. Ellis must increase interest in cases of pleuritic effusion, and be of great value in leading us to a correct diagnosis.

GEORGE W. GARLAND, M.D.

Obituary.

DR. P. A. O'CONNELL.

DR. O'CONNELL was born in Killarney, Ireland, in 1835. In 1837, his family came to America and settled in Boston. His father was a watchmaker by trade, but studied at the Harvard Law School, and practised law for some years in Boston. Dr. O'Connell was fitted for College principally in Montreal and in Boston, and was graduated with honor at Cambridge, in the class of 1857.

Immediately after graduating, he entered upon the study of medicine in the office of Dr. H. G. Clarke, of this city. He took his medical degree in 1860, and his Master's degree at the same time. On the breaking out of the War of the Rebellion in 1861, Dr. O'Connell became connected with the 9th Regiment Mass. Vols. as Assistant Surgeon. He served in this capacity until September, when he resigned and, soon after, was commissioned Surgeon of the 28th Regiment Mass. Vols. He remained with this regiment until the latter part of 1862, in South Carolina, Virginia and Maryland. He was taken prisoner at the second battle of Bull Run, but was released in season to be present at the battle of South Mountain, on which field he was made Brigade Surgeon. After the battle of South Mountain, he was appointed Division Surgeon, though almost the junior surgeon of the corps, both in years and commission.

In June, 1863, he received the appointment of Surgeon of U. S. Vols. and served as Medical Director of Indiana and Michigan. Dr. O'Connell was mustered out of service in August, 1865, and, soon after, received a brevet as Lieut. Colonel, U. S. Vols.

He then engaged in the practice of his profession in Boston, and was, for a time, one of the visiting surgeons of the Carney Hospital. In 1871, he went to Europe, and spent a year in professional studies in Vienna and other of the Continental Schools. He returned in the fall of 1872, with the disease, which ultimately proved fatal, in active progress. Notwithstanding the severity of the disease, he struggled manfully to resist its advances, and engaged, more or less, in business until the last weeks of his life. As a final resort, he went to California in November, but without avail. He died near Santa Barbara, January 6, at the age of 38.

Dr. O'Connell was well and favorably known in Boston as a skilful, intelligent and conscientious physician; a cultivated gentleman; an excellent citizen; but his loss will be most keenly felt by those hosts of friends to whom he had bound himself in his professional and social walks.

Medical Miscellany.

Bowdoin College.—The medical course begins to-day, Dr. Amory delivering the introductory lecture. A large class is expected.

Journal de Therapeutique.—A new French journal having the above title, and edited by Dr. Gubler, was announced to appear in January.

Ranking's Half Yearly Abstract is to be discontinued, its place having been supplanted by other journals conducted on a similar plan, but issued more frequently.

Dr. Henry Miller, President of the Louisville (Kentucky) Medical College, died on the 8th inst. He was a distinguished professor of obstetrics, and had contributed considerable to the literature of that department of medicine.

New Food Adulteration.—In the latest recorded case of food adulteration, eight ounces of mashed potatoes were found inside a roll of country butter.

The Hypodermic Use of Ether has been found beneficial in collapse from hæmorrhage. It is injected till the breath shows its presence. There are no unpleasant local effects.—*The Canada Lancet.*

Adhesive Plaster which has become brittle by age, and has lost its adhesive qualities, may be rendered useful again by coating it with oil of turpentine, by means of a sponge, and leaving it exposed for a day.

Gum Camphor and Hydrate of Chloral, when mixed together in equal proportions, are converted, in the course of a few days, into a clear, colorless liquid.

Honor to Professor Rokitansky.—The Municipal Council of Vienna has resolved to confer the honorary freedom of the city on Professor Rokitansky on the occasion of his attaining his seventieth birth day.

An inquiry into the sanitary state of the town of Cambridge, England, is now being prosecuted by Dr. Buchanan, senior medical inspector of Mr. Simon's staff. Typhoid has prevailed extensively in the town.

Dr. C. E. Brown-Sequard will deliver a course of six lectures in this city on "The Nervous Force: Its Various Modes and Limits of Action." The lectures will be delivered in the hall of the Lowell Institute at 7.30, P.M., the 25th and 28th of the present month, and the 4th, 7th, 11th and 14th of next month.

Dr. S. W. Butler, the editor of the *Philadelphia Medical and Surgical Reporter*, recently died of phthisis. He was well known as a zealous and enterprising medical editor, and, besides his labors in this direction, he has of late years interested himself greatly in the publication of various medical works, of which the *Half Yearly Compendium* is the best known.

Aromatic Candles.—The latest novelty in the way of pharmaceutical applications is a candle impregnated with some aromatic substances, such as benzoic acid or styrax. When the candle is lighted, the surrounding air is quickly impregnated with balsamic vapors, which, it is thought, will afford relief to many cases of irritation of the pulmonary mucous membrane, as well as to bronchial spasm.

Subcutaneous Injection in 1664.—"With Mr. Pierce, the surgeon, to see an experiment of killing a dog, by letting opium into his hind leg. He and Dr. Clarke did fail mightily in hitting the vein, and in effect did not do the business after many trials; but with the little they got in, the dog did presently fall asleep, and so lay till we cut him up."—*Pepys's Diary*, vol. ii. p. 126.

NOTES AND QUERIES.

WILL some one inform a subscriber what croton chloral hydrate is? It is spoken of in English papers.

MILK OF MAGNESIA.

MESSRS. EDITORS,—In the JOURNAL of Dec. 11th, you published a short note from me concerning the above-named preparation, which I had not then seen. Since you were kind enough to send me a bottle of the article, received directly from the manufacturer, I have taken occasion to examine it. Before making any further comments, I will quote the first sentence from their handbill:—

"This preparation is a combination of *Pure Magnesia* with *Pure Water*, 'by a new process,' and, having the necessary fluidity, is termed, in scientific language, *Hydrate of Magnesia.*"

The article is, in no chemical sense, a combination of *pure magnesia* with *pure water*, and is *not*, in scientific language, termed hydrate of magnesia, because it has the necessary fluidity. It is *not* a new preparation, but has been spoken of years ago as an antidote to arsenious acid, of less value than the hydrated sesquioxyd of iron. I know nothing of any new process for making it, but any one can make the same *mixture* by simply decomposing a solution of Epsom salts with water of ammonia, and washing the precipitate. It is possible that "infants take it like milk," but they will be long fatting upon it, and it will not keep so well as the fluid magnesia of Dunbar. The contents of the bottle received from you began to precipitate before it was opened, and the precipitate will not dissolve in either water or milk to any extent.

This matter you may deem of no consequence, but it as well to put the facts forward, before some of our easily persuaded brethren are induced to allow their names to be paraded in public as its admirers. * * *

PHOSPHORUS PILLS.

MESSRS. EDITORS,—Having seen a notice in your JOURNAL of January 22, 1874, over signature of "Pills," asserting that the pills of phosphorus manufactured by us contained no phosphorus, several careful examinations were made of *single* pills taken at random from our stock, each pill containing one sixtieth of a grain of phosphorus. In every case, the presence of *free* phosphorus was unequivocally demonstrated by the well-known test of Mitscherlich. As the phosphorus is dissolved in bisulphide of carbon before dissemination with the excipient forming the pill, amorphous phosphorus cannot be present.

Respectfully, BULLOCK & CRENSHAW.

The experiment demonstrating the *free* presence of phosphorus in pills manufactured by Bullock & Crenshaw was made in our presence. A *single pill*, containing one sixtieth of a grain of phosphorus, gave satisfactory evidence of the presence of free phosphorus.

ROBERT BRIDGES, M.D., *Prof. of Chemistry, Phila. Coll. of Phar.*
JOHN J. REESE, M.D., *Prof. of Med. Juris. and Toxicol., Univ. Penn.*
Philadelphia, February 5, 1874.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending February* 7, 1874.

Boston, 135; Worcester, 15; Lowell, 19; Milford, 4; Chelsea, 6; Salem, 6; Lawrence, 16; Springfield, 7; Lynn, 15; Gloucester, 4; Fitchburg, 7; Taunton, 7; Newburyport, 3; Somerville, 3; Fall River, 15; Haverhill, 5; Holyoke, 6. Total, 273.

Prevalent Diseases.—Consumption, 57; pneumonia, 27; scarlatina, 24.

Deaths from scarlatina were reported as follows:—Boston 6, Fall River 6, Lynn 4, Lowell and Chelsea 2 each, and four other cities 1 each.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Feb. 14th, 147. Males, 80; females, 67. Accident, 7; abscess, 1; apoplexy, 1; asthma, 1; aneurism, 2; inflammation of the bowels, 1; bronchitis, 3; congestion of the brain, 2; disease of the brain, 10; cystitis, 1; cancer, 2; consumption, 30; convulsions, 1; croup, 1; debility, 5; diarrhœa, 2; dropsy, 1; dropsy of the brain, 1; diphtheria, 2; erysipelas, 4; scarlet fever, 11; typhoid fever, 3; gastritis, 1; gangrene, 1; hernia, 1; disease of the heart, 4; disease of the hip, 1; disease of the kidneys, 2; disease of the liver, 2; congestion of the lungs, 4; inflammation of the lungs, 17; laryngitis, 1; marasmus, 2; malformation of heart, 1; old age, 2; paralysis, 1; premature birth, 3; peritonitis, 2; puerperal disease, 1; rheumatism, 1; scrofula, 1; rupture of the spleen, 1; disease of the spine, 1; tumor, 1; whooping cough, 1; unknown, 3.

Under 5 years of age, 48; between 5 and 20 years, 10; between 20 and 40 years, 33; between 40 and 60 years, 23; over 60 years, 33. Born in the United States, 95; Ireland, 30; other places, 22.

THE

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Original Communications.

A CASE OF NEURIASIS.

By THEODORE W. FISHER, M.D., Boston.*

FREQUENT attempts have been made of late to find a substitute for the name "hysteria," which has for a long time been out of favor with physicians as well as with patients. This effort has been stimulated by the growing disbelief, on the part of many, in the uterine origin of this essentially nervous affection. A satisfactory pathological designation is hardly to be expected in our present state of knowledge. It is difficult, also, to include such a multiplicity of various symptoms under one head. Briquet's definition of hysteria, "a perversion of the vital acts which manifest the affections and passions," makes it a form of moral insanity. Dr. Reynolds says: "The hysteric state is essentially one of mental perturbation." Dr. Radcliffe considers hysteria to be "a want of will power in the control of the emotional nature, due to a susceptible nervous temperament." He gives to this state the name of "*neuriasis.*" Others prefer the term *neurasthenia.* I think Dr. Geo. M. Beard, of New York, claims the introduction of this term, as applied to nervous exhaustion, giving rise to symptoms of hysteria. Although this term is very appropriate for, perhaps, the majority of cases, hysteria does occur in individuals physically robust, who show little evidence of general debility. Sir James Paget says hysterical patients may be called "hyperneurotic," if they or their friends prefer Greek to English. In a recent lecture, at St. Bartholomew's Hospital, he considers the surgical aspect of hysteria under the term "*neuromimesis,*" or the nervous mimicry of organic diseases.

To call a person, given to extravagant and erratic nervous manifestations, hyperneurotic, is to overlook the fact that, as in muscular spasm, there is really a loss of inhibitory power, allowing unregulated action to occur. The person is really neurasthenic as to the particular nerve centre involved. The hyperneurosis is merely a symptom. So is the uterine disorder, the frequency of which suggested the name hysteria. This must in many, if not in most cases, be classed with the host of other mimetic and pseudo-organic diseases, so common in this protean disorder.

I wish here to quote at length what Sir James Paget says on this point. He gives forcible expression to opinions which have been frequently advanced, as well as warmly opposed, in this city. As he is neither a uterine specialist nor an alienist, his views may be considered reasonably impartial. He says: "In the defective ovarian and

* Read before the Boston Society for Medical Observation, January 5, 1874.

uterine functions of certain patients, some see the centre and chief substance of the whole disease—a very mischievous fallacy. Of course, the sexual organs appear generally in fault to those who are rarely consulted for the diseases of other parts; but in general practice they are, in a large majority of cases, as healthy as any other parts are, or not more disturbed. The close and multiform relations of the sexual organs with the mind, and with all parts of the system, are enough to make the disorders of these organs dominant in a disorderly, nervous constitution; but their relation to 'hysteria,' or to 'neuromimesis,' though more intense, is only the same in kind as that of an injured joint, or an irritable stomach. All, in their degrees, may be disturbers of a too perturbable nervous system; and equally on any one of them, the turbulence of a nervous centre may be directed, with undivided force."

I think my own experience corresponds entirely with the above views; and, still further, will bear out the assertion that there is the same relation between uterine disorder and hysteria in women, that there is between many cases of seminal weakness, so-called, and hypochondriasis in men, with the addition, in the latter instance, of an added sense of disgrace. I see no reason why one term should not be used for these two diseases, at least in the present state of pathological science.

In a paper which I had the honor of reading to this Society two years ago, and which was published in the JOURNAL of February 1st, 1872, I presented, indiscriminately, ten cases, including both hysteria and hypochondriasis, under the general term of neurasthenia. Perhaps *neuriasis* is the better substitute for hysteria, since it is unsuggestive of any theory of causation. It would, also, include hypochondriasis equally well. The English of it is simply *nervousness*, a word which has long been applied to cases of this class. It should be remarked here that hypochondriasis is certainly as neuromimetic as hysteria. Sir James Paget, in speaking of the relations between nervous mimicry and mental insanity, makes the following suggestive remark: "Surely," he says, "any nervous centre may go mad, as well as any part of the brain, which is appropriate to any part of the mind; and may be mad in different ways, including the idiotic, emotional, maniacal, or other forms of insanity."

I will report a case of nervous disorder, which has several points of interest, and which seems to require some other term than hysteria to properly designate it.

Mrs. A., aged 43, married and the mother of four living children, the youngest of whom is twelve years of age. Her father died of disease of the heart, at the age of sixty-five; her mother is still living, in good health. Hysteria, scrofula and phthisis have appeared in the family. The patient was a lady of much energy and ambition in social and family matters, but over-anxious and pains-taking to a fault; she was also of an excitable, emotional and demonstrative temperament. After the birth of her first child, she had a severe attack of hysteria, in consequence of exhaustion from a difficult labor and an instrumental delivery. She began, two years ago, to fail in health perceptibly, after a period of watching and of anxiety during her father's last sickness. Gradually, she became emaciated and low-spirited, but continued to perform her household duties scrupulously,

refusing rest or vacation, and sparing herself in nothing. She refused to take medical advice, because she knew she should be compelled to take to her bed. She felt that if she once "gave up" she should be sick and die.

She was first seen April 3d, when her condition was found to be one of extreme debility. She complained of weakness, loss of sleep and of appetite; shortness of breath and palpitation on exertion, headaches, and pain under the left scapula, under the sternum, and in the region of the heart. She feared heart-disease, because her father died of it. She had previously felt what she imagined was a tumor, with tenderness, in her left side. This had vanished, but she now feared the existence of some abdominal tumor. There had, formerly, been great tendency to constipation, but now diarrhœa alternated with it. She had been troubled with hæmorrhoids. There was no great irregularity of the menses, though the "turn of life" was believed to be near at hand.

On examination, no evidence of heart disease was obtained. The pulse was 75, and quite weak. The patient was rather thin, and quite anæmic. The tongue had a thin, white fur. Complete cessation from household work and responsibility was enjoined, with breakfast in bed, and an afternoon *siesta*. Chloral hydrate, fifteen grains, bromide of potassium, fifteen grains, and bromide of ammonium, seven and a half grains, was ordered at bed-time; and phosphide of zinc, one-tenth of a grain, extract of nux vomica, one-half a grain, was given as a tonic. This was, in a few days, changed for elixir of the phosphates of iron, quinia and strychnia, with a view to more speedily affect the appetite. Malt extract at meal times was prescribed, and directions were given to administer strong liquid nourishment, of various kinds, in definite quantities, at regular intervals between meals and in the night.

Up to the 24th of April, her condition remained unchanged. The patient refused to take her bed, either in whole or in part, making the lounge an inefficient substitute. Once or twice, she fainted while sitting quietly in her chair. She *would* take direction of household matters, sewed occasionally, came down stairs once in the evening to entertain company, and once went to church when unfit to be out of bed. She slept better with the chloral and bromides, but could not, or would not, eat, except the very smallest quantities of the most useless delicacies. She complained of inability to swallow from a feeling of choking or suffocation while eating. Headaches were of frequent occurrence, and were only partially relieved by elixir of the valerianate of ammonia. Stimulants, in moderate quantities, were added to her diet at various times, with temporary benefit.

On the evening of the 23d, she went into the kitchen and found both servants absent, without leave. This fact at once induced an attack of hysterical delirium. She was put to bed, but kept up a continual outcry for hours, recognizing no one, and losing her own identity. She referred to herself as "that woman in bed who has the headache." She repeated, in a mechanical way, "oh, that knife! that knife!" putting her hands to her left side. She had, in the course of the first twenty-four hours, occasional tonic spasms of the hands, and sometimes general rigidity, controlled by ether, which was given once or twice quite thoroughly. Attention could be gained only for a moment. Her pulse remained constantly at 75, through all her

apparent excitement. I regret not having taken her temperature at this time, as Dr. Ellis informs me he has found it as high as 103° in hysteria. Bromide of potassium, ten grains, bromide of ammonium, five grains, and acetate of morphia, one-twelfth of a grain, was ordered every three hours; one drachm of the fluid extract of senna was given every three hours, till an operation occurred.

The above condition lasted several days, the patient taking nourishment quite well, the pulse remaining at 75, and gaining a little in volume. Towards the last, a condition of alternating consciousness and delirium existed, the patient slipping easily, and at short notice, from one state into the other. This was followed, about May 2d, by a complete return to reason. The morphia and bromides were used only at bed-time, after the first day or two, substituting the fifteen-grain chloral mixture, or combining the two, as her condition seemed to require. After the operation of the senna, constipation returned, with bleeding, as if from piles, and great straining at stool, requiring the occasional use of morphia suppositories to relieve the tenesmus.

May 4th, all seemed to be going on well, though, in the evening, there was a suspicion of a cold. The eyes were a little suffused, the face flushed, and the pulse, for the first time, a little accelerated. I was unable to see her on the 5th, and on the morning of the 6th, I found a well-marked, segregated, papular eruption, perfectly resembling measles, covering the face, neck, chest and arms. It subsequently covered the whole body, lasting five or six days, disappearing first from the face and neck. It perfectly resembled an attack of measles, except, perhaps, in the absence of desquamation, and in its shorter duration. This patient had had measles when a child, and, also, an attack of what was supposed to be measles twelve years ago, after the birth of her youngest child. There were no cases of measles heard of in the immediate vicinity, and none followed exposure to the eruption in question. The patient went to church April 13th, and might, possibly, have been exposed at that time. With the eruption, the pulse went up to 100, and the temperature ranged from 102° to 103°. By the 9th of May, the eruption had disappeared, but was followed at once by a moderately jaundiced condition of the whole surface. The conjunctivæ were not affected. The patient's strength failed from this time more decidedly, though the ability to take nourishment increased. The hysterical delirium had disappeared when the eruption began. On the 12th, she felt sure she should not live, though she was in a calm state of mind. The constipation and straining were accompanied by considerable loss of blood. The urine, which had been pale and copious, became scanty, and dark with bile. Bitartrate of potassa was given in one-drachm doses, morning and night, till a fæcal discharge followed.

May 13th, Dr. Ellis was called in consultation. He could find no evidence of organic disease in the chest or abdomen, and suggested no change of treatment, except an increase of food and stimulant, in the form of brandy and milk, at short intervals. This was not well borne, the milk passing undigested in large quantities. The patient died of exhaustion, May 18th.

Autopsy, May 19th, by Dr. Rowe, and Mr. Mosely. I was called suddenly away, and could not attend. Dr. Ellis was, however, fortunately able to be present, and carefully examined all the organs of

the head, thorax and abdomen, except the spinal cord. No trace of organic disease was found; none, at least, which could account for any of the symptoms, or the fatal result. No disease, ovarian or uterine, existed to account for the hysteria, or the fancied tumor. No piles, even, were observed. There was a staining of some parts, from excess of bile in the fluids of the body, but, otherwise, no appreciable disease. This result was not in accordance with the expectation of the friends, nor of the patient herself, at whose request the autopsy was made.

To conclude, we had in this case, debility, vigilance, anorexia, constipation, pain at the back, side, and front of left thorax, headache, emotional disturbance, delirium, convulsions, partial convalescence, febricula, papular eruption, jaundice and death, with no organic lesions at the autopsy. There was hysteria of an extreme character, without uterine or ovarian disease. The neuromimetic tendency was shown in the phantom tumors of the side and abdomen, and, perhaps, in the mock measles, for it is difficult to attribute the eruption to any contagion. The question has occurred to me, whether it could have been due to the very moderate use of chloral in her treatment. She took but fifteen grains daily (at times substituting the twelfth-of-a-grain morphine mixture), for three or four weeks previous to the date of the eruption. The supposed second attack of measles occurred twelve years ago, before chloral was heard of, but might, possibly, have been excited by the use of morphia. In the general turbulence of the nervous system, it is not impossible that the same nervous condition, with consequent eruption, was induced which legitimately follows the poison of measles.

THE STYLOID MUSCLES AND ANÆSTHETICS.

By G. W. Copeland, M.D., Boston.

Anæsthetics have of late received a large share of consideration from the medical profession; yet so long as deaths occur from their use, it is evident that there is a fault either in the drug or in the manner in which it is administered. Chloroform has been disposed of for the present on the ground that it contains a poisonous ingredient liable under any circumstances to produce death. Ether is more fortunate, for it has escaped censure.

Every medical man is familiar with the fact that, at a certain stage of anæsthesia, the breathing frequently becomes irregular and obstructed by what is termed "the tongue falling back in the throat." Let us look for one moment at the way in which the drug is invariably administered.

The patient, whether sitting in a chair or lying in the recumbent posture, has his head tilted back and is requested to open his mouth and "breathe hard." Now see what follows. So long as voluntary efforts on the part of the patient continue, all goes on well; but when unconsciousness takes place, the breathing, then involuntary, becomes impeded and oppressed. Several devices are immediately resorted to, such as drawing the tongue out with a tenaculum, a pair of forceps, or, as I recently saw in one of our hospitals, by a ligature passed through it and held by the fingers of an assistant. These procedures

generally help, but seldom wholly relieve, the difficulty, so that the unconscious effort of the patient struggling for breath continues a source of anxiety to the assistants and often to the surgeon.

Having occasion to use ether quite frequently, and many times with no other help than the friends of the patient, I have at times been greatly troubled and embarrassed by the occurrence of this state of affairs. Failing, one day, to relieve the trouble by the usual plan of drawing the tongue out, I tilted the head forwards, closing the mouth, and established free and regular respirations through the natural channel, the nose. Since that time, I have repeatedly relieved the difficulty in this simple way.

Let us see what happens when the head is tilted back in the usual position. The styloid muscles are put on the stretch. The stylo-glossi draw the tongue backwards, the stylo-hyoidei draw the os hyoides upwards, and the stylo-pharyngei raise the pharynx and thyroid cartilage upwards, all thus uniting to close the epiglottis. Pulling out the tongue will partially overcome the action of the stylo-glossi, while the other muscles still maintain their action.

Now see what takes place when the head is tilted forwards. The styloid muscles are all relaxed, the tongue falls forward in the mouth and the larynx falls into its proper place, thus leaving the epiglottis free and the glottis unobstructed.

Here, then, I claim is the secret of preventing or relieving this trouble with the breathing. So soon as the patient becomes in the least unconscious, tilt the head forwards and make him breathe through the nose, which certainly was made for that express purpose. It seems nothing more than fair that we should give our patient, when unconscious, the benefit of having his head in a natural position, or at least in the position which he maintains when conscious.

Intestinal Sand.—M. Laboulbène has addressed to the Academy of Medicine a memoir on a hitherto undescribed substance, which he proposes to designate "intestinal sand." Six cases are related, in which it has been met with. It is not to be confounded with biliary gravel, or with small, stercoraceous concretions, but consists of small siliceous or vegetable particles, which are derived from without, and which form nuclei, around which accumulate layers of azotized matters, and of ammonio-magnesian phosphate. The mode of formation, therefore, is analogous to that of urinary calculi. The following are the general conclusions of the paper:—1. We sometimes find in the stools a sandy matter, which I propose to call "intestinal sand." It much resembles yellowish or brownish sand, the largest granules being from three-quarters to one millimetre in diameter, and the smallest three-tenths of a millimetre. 2. The surface is irregular, and covered by ragged crystals. 3. The sand always contains siliceous particles, encrusted by organic matters, and ammonio-magnesian phosphate, which is usually accompanied by vegetable cells, unattacked by the active liquids of the stomach and intestines. 4. This sand is derived from without, and seems to be produced in consequence of a too exclusively vegetable alimentation, and the unperceived, or even intentional, ingestion of siliceous particles. 5. Moderate purgation, and a diet in which nitrogenous food is predominant, seem the best remedies.—*Medical Times and Gazette*, Jan. 10, 1874.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By James R. Chadwick, M.D.

[Concluded from p. 188.]

Diseases of Women.

Sex in Education. By Edward H. Clarke, M.D. Boston, 1873.

This brilliant essay aims at pointing out some of the errors in our system of educating girls, errors which are fraught with evils so serious as to endanger, not only the present health of our women, but also the whole future of our nation. So grave a charge being thus brought against our schools and homes, it behooves us to scan narrowly the facts and line of argument upon which the author bases his views.

To be fair to the book, we must, in the first place, bear in mind that it is not addressed to scientific circles, who would have a right to demand an array of facts and statistics before yielding assent to the propositions set forth, but to the public, who can understand the physiological laws adduced in support of the position taken, and follow the train of argument, but who would be utterly incompetent to estimate the value of any clinical experience, which might be introduced. The book is, therefore, an exposition of the author's personal opinions, and is deserving of acceptance just so far as we have faith in the correctness of his knowledge and of his deductions. As a key to these, we have the physiological laws and typical cases that are scattered through the volume.

In the introductory chapter, the perfect equality of man and woman is insisted upon, but it is not meant that the sexes are identically the same. They differ greatly, not in the extent or amount of their power, but in the direction in which it lies. They are so nearly alike in some matters that they can interchange labor without perceptible difference; in others, a change cannot be effected without a loss in the amount or quality of the work accomplished. As an illustration of this, it is evident that "a girl can hold a plough and ply the needle after a fashion. If she can do both better than a man, she ought to be both farmer and mistress; but if, on the whole, her husband can hold best the plough and she ply best the needle, they should divide the labor."

With these preliminary points settled, Dr. Clarke next defines his use of the term education as not being in the limited and technical sense of intellectual and mental training alone, but as including, what its etymology indicates, the drawing out and development of every part of the system, comprising the whole manner of life, physical and psychical, during the educational period. Again, on page 24, he says that "the object of this paper is to call attention to the errors of physical training that have crept into, and twined themselves about, our ways of educating girls, both in public and private schools."

From these two statements, we are naturally led to expect that the book aims chiefly at demonstrating how erroneous and disastrous are the regulations prescribed by the schools for the preservation of the physical strength of our girls. It is, consequently, with some little surprise that, as we turn page after page, the conviction is forced

upon us that the author has penned this philippic to show the errors in the mental discipline far more than those affecting the physical training of the scholars. The influence of "home-life and social-life" is not discussed, and hardly has a mention in the essay; this statement is made in the face of Dr. Clarke's protest in the note to the Fifth Edition, where he claims that his invectives are aimed at the errors which are sanctioned by them as much as by school-life. The testimony of the book itself is against him. In corroboration of this view, we need only to point at the typical cases cited in a subsequent chapter. Case I. is attributed, chiefly, to brain-work, and secondarily to muscular exercise necessitated by the school regulations; Case II., to muscular and brain work equally; Case III., to muscular exercise; Case IV., to brain-work; Case V., to brain-work; Case VI., apparently, to brain-work; Case VII., to "intellectual labor." The true aim of the paper seems to be to demonstrate that, during the first few years of puberty, a girl's mind cannot be cultivated persistently without entailing serious injury upon her reproductive system, and, secondarily, upon her general health. This fact our schools utterly ignore, and thus disseminate poor health and disease throughout the community.

The reason for a discrimination is, then, attributed to the monthly demands upon the female organism by the functional activity of the reproductive apparatus. These are peculiarly severe and trying during the first few years after the establishment of the catamenia, and this period, falling, as it does, between the ages of 14 and 18 years, unfortunately coincides with the period when the girl is making the greatest efforts to cultivate and train her mind by work at school. Yet, with precautions and limitations, this double demand for the development of the brain and of the sexual organs might be met without detriment to the health of the individual. Most of our girls, between the ages of 14 and 18, study five hours in school, and two or three hours at home every day; this, Dr. Clarke considers should be reduced to five hours a day, with a remission of one to three days every month. It is the educational methods of our school and colleges for girls which are, to a great extent, the cause of the many ills that beset American women, but they are not the sole cause. "We live in the zone of perpetual pie and doughnut, and our girls revel in those inassimilable abominations. Much, also, may be credited to artificial deformities, strapped to the spine or piled on the head, much to corsets and skirts, as much to omission of clothing where it is needed, as to excess where the body does not require it."

In the "Chapter chiefly Physiological," a tri-partite life is assigned to woman, the first period of which extends from birth to about the age of 12 or 15 years; the second from the end of the first to about the age of 45; and the third, from that time to the completion of life. The critical years are those of passage from one period to the next, and it is the earlier of these which we are now discussing. The organs peculiar to the female sex then enter upon a condition of functional activity. Nature has reserved one week in the month for the process of ovulation and for the development and perfection of the sexual apparatus. The system never does two things well at the same time; the muscles and the brain will not perform their functions, in their best way, at the same time; consequently, muscular work and brain

work must be periodically remitted up to the age of 18 or 20 years, if we expect the reproductive system to do its task properly.

Both sexes alike possess certain organs of elimination, such as the bowels, kidneys, lungs and skin; but to woman alone, he claims, is entrusted the exclusive management of another process of elimination, namely, the catamenial function. "The reproductive apparatus of woman uses the blood as one of its agents of elimination. Kept within natural limits, this elimination is a source of strength. . . . . Beyond these limits, it is a hæmorrhage that, by draining away the life, becomes a source of weakness, and a perpetual fountain of disease." An imperfect performance of the functions, "by closing an avenue of elimination, poisons the blood, and depraves the organization." These quotations, as well as other passages (pp. 92, 96, &c.), show that the author still adheres to the old doctrines, which taught that an excrementitious element was expelled from the system in the menstrual discharge (analogous to urea in the urine), whereas modern physiologists and chemists have demonstrated conclusively that this discharge consists only of venous blood, with the admixture of uterine and vaginal mucus and a few epithelial cells (Krieger. Die Menstruation. Berlin, 1869. p. 102). This, too, is in accordance with recent microscopical researches (Kundrat and Engelmann, in *Stricker's Jahrbücher*, II. Heft, 1873), which have shown that the blood is simply extravasated into the cavity of the uterus, owing to a fatty degeneration which takes place in the walls of the capillaries distributed in the menstrual decidua. An arrest of the monthly flow is now generally regarded either as a symptom of anæmia, when it is really a conservative act of nature, or as due to some derangement of function, when it results not in a poisoning of the blood, but in the retention of an excessive amount of blood in the system, giving rise to a condition of congestion, both local and general, with its characteristic symptoms. A dissent from Dr. Clarke's physiology on this point does not, however, involve a disbelief in the harm likely to arise from any disturbance of menstruation.

Another statement which is hard to accept, in view of the contrary opinions expressed by the majority of authorities in this branch of medicine, is that which explains the occurrence of menorrhagia in school girls, by supposing a determination of blood toward the brain owing to its activity, and a consequent anæmic state of the pelvic organs, whereby "there is not nervous power enough developed in the uterine and associated ganglia to restrain the laboring orifices of the circulation." This cause of menorrhagia is overlooked by Duncan, Thomas, West, Barnes, and other gynæcologists; in fact, they all mention congestion of the pelvic organs as the chief source of excessive menstruation. It is to be remarked that from the preface we learn that "the subject is treated solely from the standpoint of physiology."

In the chapter on "Co-education," the common signification of the term is adopted, which "includes time, place, government, methods, studies and regimen. Age and proficiency, but not sex, is admitted as a factor in classification. Physiology protests against this, and this is the characteristic of the American school system. . . . Schools have been arranged to meet the requirements of the masculine organization. Girls' schools are modelled on boys' schools."

This peculiarity of our schools is the butt of the whole book. If schools can only be arranged, argues Dr. Clarke, so as to recognize the periodicity of the feminine organization, our women would have a fair chance of escaping the shoals toward which they are now steering. No suitable plan has yet been devised for meeting this necessity in mixed schools. Identical co-education is, consequently, a sharpened stake on which our nation is about to impale itself.

The concluding chapter endeavors to show that the European way of educating girls differs from our way in the essential points at issue. Two letters, from a German gentleman and lady, respectively, are introduced; their testimony is meagre and conflicting. Yet one point is of interest and importance, if true, namely, that German girls seldom attend school after 15 years of age, but pursue their studies at home; they are thereby able to take the needful relaxation once a month. On the other hand, it is explicitly stated that German girls make no change, provided the function is normally performed. Social restrictions are, however, imposed upon them by their parents, for it is mentioned that they are not allowed to ride, nor do they go to parties or dances. It is evident that the health-insuring regimen observed among our Teutonic friends emanates more from the home than from the school.

We are all immensely indebted to Dr. Clarke for tearing off the conventional fig-leaf which has hitherto prevented the public from discerning clearly that peculiarity of physical organization in woman which has stood in the way of her adopting the garb and habits of a man.

The book is not convincing—perhaps, owing to the reasons given in the first part of this abstract—but it has certainly done good service in opening up for discussion a subject well worthy of long, patient, and above all unprejudiced, investigation; having succeeded in this, the author will—to use his own words—be amply repaid for the time and labor of its preparation.

Colotomy.—In the *British Medical Journal* of November 15, 1873, Mr. Christopher Heath reports eleven cases of colotomy, all in women; three operations were for cancer of the rectum causing obstruction; three were for cancer before obstruction had occurred; three were for syphilitic ulcer and stricture; one was for fistulæ and ulceration (probably syphilitic), and one was for relief of a recto-vaginal fistula. The results were four deaths and seven recoveries. Several of the patients were greatly exhausted before they came under his care, but the author claims that the operation, if it can be performed in good season, may be regarded as a fairly successful one, and that the immediate risk is small. The operation is not difficult in the majority of cases, and even if the peritoneum is opened—which is not always avoidable—it is not necessarily fatal. Colotomy is distinctly curative in syphilitic ulceration of the rectum, and relieves the suffering, as well as prolongs the life, in cancerous disease, by preventing the occurrence of obstruction.

"*De nonnullis Sterilitatis Causis.*"—Under this ponderous title, Dr. Noel Gueneau de Mussy (*L'Union Médicale*, Dec. 4, 1873) publishes, in the Latin tongue, a paper, in which he points out what he conceives to be some of the moral causes of sterility. His reason for adopting a dead language, in which to clothe his ideas, was the desire to give his work "a more serious and exclusively scientific character,"

as well as "to cover certain crudities of expression, which the French language would not sanction." Now this inordinate affection for science and coyness about expressing indecent ideas would be very refreshing to see revived in the contemporaneous literature, dramas, journals, &c., of France, but its adoption for the pages of a journal addressed exclusively to scientific and professional circles savors much more of a desire for notoriety, than of an innate modesty on the part of its author. If a man's conceptions are too nasty to express in French, the civilized world should unite in protesting against his pollution of another language, and particularly a dead one, by making it the vehicle of his thought. As it happens, however, the ideas are neither altogether new, nor so very shocking.

Bibliographical Notices.

On the Government of the Retreat for the Insane at Hartford, Conn. Printed for private use. 1873.

This is a book of 125 pages, containing letters on the meaning of certain of the By-Laws of the Hartford Retreat, which have passed between Dr. James H. Denny, the late superintendent, and his trustees, as well as letters to Dr. Denny on the same subject, from many well-known authorities on hospital organization in this country. It has long been known and regretted that the Hartford Retreat, almost alone among similar institutions, has retained the obsolete, double-headed arrangement of superintendent and steward, with distinct and independent powers. This plan always has been, and always will be, subversive of proper discipline, giving rise to conflicts of authority and petty and annoying differences of opinion in regard to matters of importance to the well-being of patients. The system is bad, and has been almost entirely superseded of late years.

In the present case, there was no personal feeling involved in the controversy, which was conducted solely on the abstract merits of the question. Dr. Denny need not, however, have confined his search for precedents to this country, although our hospitals, civil and military, stand in the very foremost rank for perfection of organization. Dr. Manning, in his admirable report to the government of New South Wales, in 1867, made after a careful survey of the hospitals of Great Britain, concludes, in regard to superintendence and management, that "the whole internal economy of an asylum should be under the control of the superintendent." Dr. Wilkins, in his equally able report, made in 1872, to the government of California, after a prolonged examination of foreign hospitals, says: "Unfortunately, the custom still prevails in some of the asylums on the Continent of placing a (non-medical) director (steward) at the head of the institution." In Great Britain, he says, the superintendent "has supreme control of the asylum over which he presides, nominates his assistants and other officers, and selects his attendants."

The rules of the Surrey County Asylum provide, in accordance with act of Parliament, that the superintendent "shall have paramount authority in the asylum, subject to that of the visitors; shall have control over all officers, &c." Also, "there shall be a clerk of the asylum, who shall act as steward. He shall perform all the duties of both those officers, under the control and direction of the medical superintendent."

In 1840, the By-Laws of the Hartford Retreat were revised, with a view to promote harmony and efficiency of action on the part of its officers. The expressed intention was to place the government of the asylum *entirely* in the control of the superintendent. The terms were, however, so ambiguous as to admit of different constructions. Dr. Butler, during his long superintendency, succeeded in making a bad system work with less friction than

would be possible for a new incumbent to do. Dr. Denny, relying on unofficial assurances of a favorable construction of the By-Laws on the part of the Board of Directors, accepted the position in 1872. Finding a difference of opinion in the Board, he at once made an effort to have the By-Laws revised on the basis of the "Propositions" adopted by the Association of Superintendents of American Asylums for the Insane in 1852. These give the nomination and direction of the steward to the superintendent. Dr. Denny's efforts, up to the time of his resignation, last December, to place the retreat on a level with other asylums in this respect, are detailed by George Wm. Curtis, President of the American Social Science Association, in *Harper's Weekly* for January 31st ult.

Letters endorsing the position of Dr. Denny were received from Drs. Ray, Nichols, Kirkbride, Tyler, Brown, Butler, Bancroft and Jelly, all well-known authorities in this country; from Maj. Gen. McDowell; from Wm. J. Sloan, Surg. U.S.A., and Medical Director of the Department of the South; from Dr. H. I. Bowditch, of this city, and from Dr. Cowles, of the Boston City Hospital, whose recent efforts for a simlar change of by-laws have been more successful.

Dr. Denny is to be commended for his persistency in behalf of a principle fundamental to success in hospital management. The Directors of the Retreat will no doubt learn in time that gentlemen who fully appreciate the importance of it, will find the acceptance of office under their antiquated By-Laws inconsistent with self-respect. T. W. F.

The Sphygmograph: Its Physiological and Pathological Indications. The Essay to which was awarded the Stevens Triennial Prize, 1873. By Edgar Holden, A.M., M.D. Philadelphia: Lindsay & Blakiston. 1874.

This volume is the work of a zealous, patient, industrious observer. The author believes in his theme, and writes accordingly. We can think of him as holding toward the little instrument which gives the title to his essay the same feelings of intimate attachment which, it is said, Ole Bull has for his violin. He has confidence in the almost unlimited capabilities of the sphygmograph; he is assured, by his painstaking observations, that a great field of investigation is open to any one who cares to enter upon it. It is a pleasure to read a book so inspired with enthusiastic faith.

The key-note of the work is contained in the opening sentence, giving a definition of the sphygmograph as "an instrument which can automatically record the peculiarities of the arterial pulse." When Vierordt invented the instrument, its powers were said to be limited to recording the "force and extent of undulations" of the pulse; but at present, according to our author, the improved construction of the sphygmograph permits a wider significance in the tracing produced. After describing the device of Marey, with whom, more than with any other observer, the sphygmograph has been associated, the author indicates certain objectionable features in that invention, and shows how these defects have been removed in an instrument contrived by himself. The mechanical principles involved, the arrangements of levers by which the pulse communicates the pressure to be amplified and recorded, are essentially the same in both instruments; but the method of securing the desired record is different in the two cases. To illustrate by a somewhat crude image; in Marey's sphygmograph, it is as if a person wrote with a crayon on a vertical black-board, the surface of the board meanwhile moving from right to left; in Holden's, it is like writing with a pen on white paper, the paper meanwhile moving away from the writer, his pen being held stationary. In the former case, in other words, the card for the tracing is vertical; in the latter, it is horizontal. Certain modifications, also, in the manner of conveying the arterial impulse to the receiving-lever, and of graduating and recording the pressure required, are said to give the later device a superiority.

After a chapter devoted to the physiological and pathological indications

afforded to the sense of touch by the pulse, as regards its frequency, rhythm, volume, strength and tension, the author proceeds to analyze and translate the sphygmographic tracing of the same phenomenon. The four parts of a typical tracing are termed "events," and each of these events means something with reference to the cardiac impulse. The first upward line marks the direct shock-wave; the second event, marked by an elevated curve, a little lower than the summit of the first ascent, is the systolic wave; the third event is the descending wave of the diastolic collapse; and the fourth "has generally been considered the diastolic expansion or recurrent wave." All these events are exposed to an infinite variety of modifications, depending on the equally infinite number of conditions to which the pulse is subject, both physiologically and pathologically. A single thought only is needed to recall the almost insignificant influences which would suffice to disturb the symmetry of the sphygmographic tracing, even in a healthy person; thus, rest and fatigue, the use of tobacco or of stimulants, a full stomach, even emotional impulses, as of anger or grief, can well be imagined to have a disturbing effect on the records of such a delicately contrived mechanism. Then, when the unlimited diversity of conditions which disease imposes on the place is considered, we can appreciate the author's remark concerning the "complex yet interesting study of sphygmographic hieroglyphics," and wonder at the patience which has for its aim the translation of such a varied language.

Nor do we withhold our admiration for an observer of such industry, even after he ingenuously confesses on the threshold that, the more minutely the tracings have been studied by himself, "the more firmly has the conviction grown that our present attempts at translation are defective." If the field of observation "has been pathless and virtually unexplored," it is a great gain to have a guide to the *terra incognita* who is at least undaunted by the difficulties in the way. How faithfully he has studied his art, may be inferred after an examination of his analysis of nearly three hundred tracings, *fac similes* of which are admirably given in the book before us. These observations illustrate the whole field of pathology. Those, however, which embrace the study of cardiac diseases are obviously of special interest, since it is in this direction that the sphygmograph has been most used. We cannot do more in this connection than to refer the reader to the carefully collated notes, assuring him that he will find much to reward his perusal.

Part III. is devoted to the study of sphygmographic observations in connection with the physiological effect of medicines on the pulse. The drugs selected for experiment were cannabis indica, gelseminum, aconite and quinine. The author's enthusiasm as an observer is attested in the recorded fact that, in the course of two hours and forty minutes, he took into his stomach *twenty-six grains* of the alcoholic extract of Indian hemp.

It is no disparagement to this book, or to its author, to remark that the perusal of the work will hardly tend to tempt the reader to go forthwith and purchase a sphygmograph. We doubt if the recent graduate will feel it necessary, for some years to come, to add this instrument to the stethoscope, the thermometer, the microscope, the speculum (save the mark!) of his armamentarium. Sphygmography is not yet a fixed science; its teachings are not yet dogmatic. Moreover, "the maze of uncertainty and doubt" that has hitherto surrounded the best observers, our author included, would be enough to appal the ordinary physician, even before he had fairly learned the intricacies of the instrument. The sphygmograph must, for a long time to come, follow and not lead in the line of the aids to diagnosis. What it will do in the future, we must trust will be fully developed by such earnest, patient, skilful workers as the author we have before us.

The book is presented very attractively, the imprint and the illustrative cuts being admirable. A few errors in proof-reading would doubtless disappear in a revised edition; and we trust, also, that certain peculiarities of orthography are accidental only. We do not find, in the last edition of Dunglison, the words "metrorhagia" and "progresso-loco-moto-ataxia," which occur here repeatedly. F. W. D.

Clinique Chirurgicale de l'Hôpital de la Charité. Prof. GOSSELIN. Paris. 1873.

THE second volume of this work contains a number of lectures on diseases of the genito-urinary organs; we will only notice one important point relating to the causes of stricture of the urethra. Prof. Gosselin repeatedly asserts his strong conviction that the use of urethral injections in gonorrhœa is an unnecessary and often harmful means of treatment, being one of the most fruitful sources of stricture. His strong statements to this effect, coming from such an authority, will lead many of his readers to altogether discard this mode of treatment. Authorities of equal weight could easily be adduced in support of injections, but the limited space at our command forbids our attempting to discuss such opinions as may be brought forward in this very summary review, however little we may feel inclined to endorse them. In this connection, however, we are tempted to recall to our readers a valuable paper on Stricture by Bryant (*Guy's Hospital Reports*, 3d series, vol. viii.), in which the causes of the disease were carefully investigated in 646 cases; in only 78 of all these cases (12 per cent.) had injections been used at all, and with regard to this small proportion of cases, the question remains open whether stricture should be attributed to the treatment used or to prolonged urethritis, on which, in course of time, all known modes of treatment, injections included, are usually brought to bear.

BOOKS AND PAMPHLETS RECEIVED.

Second Biennial Report of the State Board of Health of California for the years 1871, 1872 and 1873. Sacramento. 1873. Pp. 235.

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., and William Pepper, M.D. Fifth Edition, revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1874. Pp. 1008. (For sale by James Campbell.)

The Puerperal Diseases. Clinical Lectures delivered at Bellevue Hospital. By Fordyce Barker, M.D. New York: D. Appleton & Co., 549 and 551 Broadway. 1874. Pp. 526. (For sale by Estes & Lauriat.)

Tenth Annual Report of the Board of State Charities of Massachusetts, to which are added the Reports of its several Officers. 1874. Pp. 151.

Formulas for Elixirs, adopted by the American Pharmaceutical Association at its twenty-first annual meeting.

Legal Responsibility in Old Age. By George M. Beard, A.M., M.D. Read before the Medico-Legal Society of New York. 1874. Pp. 42.

Yellow Fever Epidemic of Memphis, Tennessee, 1873, as observed by S. R. Le Monnier, M.D.

On Sarcomatous Growths of the Uterus. By William F. Jenks, M.D., Surgeon to the State Hospital for Women. Philadelphia: Collins, Printer. 1873. Pp. 15.

Addresses on the Occasion of the Commencement Exercises of the Medical Department of University College, delivered in Calvary Church, San Francisco. By E. R. Taylor and Prof. J. F. Morse. 1873.

Catalogue of the Library of the Surgeon-General's Office, United States Army. In three volumes. Washington: Government Printing Office. 1873.

Relations of Colorado to Pulmonary Consumption. By Thomas E. Massey, M.D. Denver. 1874. Pp. 26.

Galvano-Therapeutics. By David Prince, M.D., of Jacksonville, Ill. Philadelphia: Lindsay & Blakiston. 1873. Pp. 64.

The Student's Guide to Surgical Anatomy: being a Description of the most important Surgical Regions of the Human Body, and intended as an Introduction to Operative Surgery. By Edward Bellamy, F.R.C.S. Philadelphia: Henry C. Lea. 1874. Pp. 300. (For sale by A. Williams & Co.)

History of the American Ambulance established in Paris during the Siege of 1870–71, together with the Details of its Methods and its Work. By Thomas W. Evans, M.D., D.D.S., PhD. London: Sampson, Low & Co. 1873. Pp. 694. From Wm. Wood & Co. (For sale by A. Williams & Co.)

Boston Medical and Surgical Journal.

Boston: Thursday, February 26, 1874.

At a special meeting of the College of Physicians of Philadelphia, held on February 18th, a report of the autopsy of the Siamese twins, so far as it had been completed, was given by Drs. Pancoast and Allen. The thorax had not yet been opened, nor had the connecting band been fully dissected. From Dr. Allen's report, however, we obtain a pretty accurate idea of the structure of the band. The ensiform cartilages are connected with one another by what is apparently a synchondrosis, with a median, bursa-like sac, which is not quite in the middle line of the band.

At the lower border of the band, immediately above the umbilicus, is a blind, peritoneal pouch, passing from the abdomen of Chang to the opposite side of the band. Immediately above this is a similar pouch, passing from the abdomen of Eng to the opposite side of the band. These pouches do not connect. There is, therefore, a complete separation of the two peritoneal cavities. The relations of these pouches directly suggest that they have had essential bearings to the umbilical vein of the funis, and are therefore termed the *umbilical pouches*. Dr Allen further states:—

"Above Eng's pouch, and between it and the under surface of the ensiform conjunction, is a second pouch prolonged from Chang's abdomen, which fairly reaches the peritoneal cavity of Eng, but is not continuous with it. Extending up into this pouch from Chang's abdomen is a process which suggested to the Commission the possibility of the transit of hepatic vessels. This view was rendered more probable from the fact that a similar process passed up into the band from the liver of Eng. Accordingly, the plaster injection, colored by ultramarine, was thrown into a tributary of the portal vein of Chang, when it was observed that the fluid passed freely into the liver of Eng, as well as into some of the mesenteric veins proper. It is my own hypothesis that this bond of union was the true hepatic tract; but in its present state, in the absence of evidence of any parenchymatous admixture about the vessels thus crossing the band, we prefer to denominate the transit as the *tract of portal continuity*."

A full account of the autopsy, so far as it has been conducted, is given in the *Philadelphia Medical Times* of the 20th inst., and two wood-cuts show clearly the relations of the two abdominal cavities.

The resignation of Dr. James H. Denny from the office of Superintendent of the Hartford Retreat for the Insane cannot be allowed to pass without special notice. We have watched the course pursued by Dr. Denny, and the singular proceedings of the Board of Managers,

with deep interest. We have always considered that Dr. Denny, during this protracted controversy, has been sustaining the honor of the whole profession in claiming for it a supreme control of the management of patients committed to its charge; and that he was also contending for a principle essential to the proper carrying on of an asylum for the insane. The facts are substantially as follows:—

The Institution is said to be governed by a Board of twenty Directors. These gentlemen make the laws, and that duty seems to be all that they do. They rarely, if ever, visit the Institution, and the whole practical guidance of it and the interpretation of the laws is committed to a Board of three Managers. From this anomalous and unfortunate arrangement, we believe all the trouble has arisen, and we cannot but fear that this arrangement, if it be allowed to continue, will always, in the future, cripple the Institution as it has in the past. As far back as 1835, that is nearly forty years ago, there was a clashing between the respective duties of medical superintendent and steward. Dr. Woodward, at that time, declined to accept the office of superintendent for the same reasons that Dr. Denny resigns now. In consequence of this difficulty, the By-laws were altered by the Directors in 1840, so as to make the Superintendent supreme. But here comes in the fatal influence named above.

The thanks of the profession are due to Dr. Denny, for the able and gentlemanly manner in which he has sustained its honor and its dignity in this contest. We cannot see how any intelligent, independent man can accept the office of superintendent while liable to meet with such difficulties as must inevitably arise under the present interpretation of the By-laws. Is it possible that the real friends of the Hartford Retreat can allow such a state of things to remain much longer? If so, we fear the days of its active usefulness are numbered.

A notice of the report of Dr. Denny's correspondence and other points relating to his resignation will be found on another page.

We understand that, on the 17th of this month, the Trustees of the City Hospital elected Dr. William E. Boardman and Dr. James R. Chadwick as Physicians to a new department. This is an out-patient department for the treatment of diseases of females. The two gentlemen have received the highest recommendations from physicians who know their qualifications, and we are told that the elections were unanimous. Dr. Boardman was formerly House Physician in the City Hospital, elected after a rigid examination. Dr. Chadwick held the position of House Surgeon in the Massachusetts General Hospital, and has since then been pursuing, in Germany, the study of the diseases of women. We congratulate the Trustees and the Hospital on the selections which have been made for the new service.

Gastrotomy in Extra-Uterine Fœtation.—Two cases have been reported to the Obstetrical Society of London (*Obstetrical Journal of Great Britain*, June, 1873) by Mr. Ross Jordan, of Birmingham, and Mr. John Scott, of London. The first was successful, but in the latter the woman died thirty-one hours after the operation. In both, the opening in the cyst wall was stitched to the edges of the abdominal incision, so that the cavity of the sac had a free communication with the outside. This was done for the purpose of allowing free exit to the pus which might result from suppuration of the placenta. This latter was not detached, for fear of hæmorrhage from the ends of the vessels that its removal would leave patulous, since there are no muscular fibres in the cyst walls which, by contracting, could close the orifices.

Dr. Keller, of Strasbourg (*Gazette Hebdomadaire*, No. 29), publishes two cases of extra-uterine pregnancy, in which gastrotomy was successfully performed by Dr. Kœberlé. His conclusions as to treatment are, that, in the first half of pregnancy, internal abortion should be brought about by the capillary injection of toxic substances; and a postponement of all interference, in the last half of gestation, until the full term has been reached, when gastrotomy should be performed for the purpose of extracting the child, whether living or dead. Nine cases of gastrotomy at full term are appended. The mother was saved four times and the child five times; in one of these instances, there being a twin pregnancy, the mother and both children were saved.

Cholera in Vienna.—Out of 4,300 persons attacked by cholera in Vienna, during the recent epidemic, the disease proved fatal in 2,200 cases.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(*Saturday, February* 14, 1874.)

Operations were performed in the following cases:—Disease of the Ankle-joint, Fatty Tumor, Tumor of Back, Hydrocele, Fatty Tumor, Fissure of Anus, Abscess of Thigh, Tumor of Finger, Abscess, Cancer of Pharynx, Wart.

Disease of Ankle-joint—in a male adult; the result of a neglected sprain received one year ago. Fistulous openings on both sides of the ankle communicated with the interior of the joint. Dr. Cabot said it would be injudicious to perform excision, as the patient's health had become so much impaired. He then amputated by making two lateral flaps and sawing the bones just above the malleoli. On opening the joint, gelatiniform degeneration of the cartilaginous surfaces was found.

Fatty Tumor—of five years' growth, in a woman aged forty, situated on the outer side of arm, large as a hen's egg, lobulated, fluctuating, adherent to deep fascia and integuments. Excised by a straight incision.

Tumor of Back—of the size of a lemon, lobulated and fluctuating. Dr. Cabot made a straight incision, and dissected the skin off the underlying growth, which proved to be lipoma.

Hydrocele—of the tunica vaginalis. It first appeared fourteen years since, and had been tapped once, two weeks ago. The fluid had again accumulated. Through the thin intervals of a generally thickened but not much distended sac, a tumor of the testicle could be felt. The testicle of the opposite side was also enlarged, hard and moderately tender. This condition of the parts, in connection with the fact that the patient had a cough, was thought

to contra-indicate any other treatment than tapping. Half a pint of clear serum was drawn off, when a hard, irregularly shaped tumor could be felt, evidently due to chronic inflammation, and constituting what was formerly known as "scrofulous testis."

Fatty Tumor—about the size of a hen's egg, situated beneath the skin, midway between the crest of the ilium and the last rib. Dr. Cabot made a straight incision and excised it.

Fissure of Anus—in a man. He had suffered from considerable pain, and had lost blood during defæcation during the last seven months. Dr. Cabot ruptured the sphincter ani.

Abscess of Thigh—of four weeks' duration, in a young child with scrofulous antecedents. Dr. Cabot removed three ounces of thin pus by the aspirator.

Myeloid Tumor—on the finger of a man thirty-five years old. It first appeared at the middle of the second phalanx, and had been slowly growing for sixteen years. Two weeks ago, he jammed the tumor between two boxes; since then it has doubled. Dr. Cabot amputated at the metacarpo-phalangeal articulation.

Abscess—over the sternum of a male adult. Dr. Cabot opened it and examined for carious bone. None found.

Cancer of the Pharynx—in a man forty-seven years old. The disease was of long standing, and, recently, of very rapid growth. It had involved the whole pharynx, and had begun to encroach upon the adjoining parts. Within a short time, a mass had projected from the region of the right tonsil of sufficient size to interfere seriously with breathing and swallowing. Dr. Cabot removed a portion of it with the écraseur, remarking that the relief would be temporary only, and the patient was sure to die, the disease having progressed so far as to make any more radical operation impracticable.

Wart—of three months' duration, following the paring of an ingrowing toe-nail. Dr. Cabot excised the growth and removed a portion of the adjoining nail.

H. H. A. Beach.

BOSTON CITY HOSPITAL.

Among the surgical operations performed last Friday, February 20, were the following:—

Excision of the Head of the Femur was done by Dr. Cheever. The patient was a child six years old. Symptoms of disease at the hip-joint had been noticed about six months. The child entered the hospital on the 10th inst., with a fluctuating swelling below the hip, flattened nates, muscular anchylosis of the joint, lameness and pain. A sinus, connecting with the joint, had opened in the upper third of the thigh on the outer side. There was grating when the thigh was flexed.

A V-shaped flap of the soft tissues was dissected from over the outer side of the joint, exposing the great trochanter. A quantity of pus escaped when the skin and muscles were divided. The caries involved the neck of the femur, so that the section of the bone was made with the chain-saw below the great trochanter. The acetabulum was partially eroded at the edge; not sufficiently so, however, to require interference. The head of the femur showed extensive erosion.

The flap was stitched back to the skin above, by a silver-wire suture, and the cavity of the wound was packed with sponge. The pus resulting from the disease had burrowed among the extensor muscles of the thigh; a counter-opening was made at the lowest part of this excavation, to allow drainage.

A male adult was presented, with a tumor overlying the costal cartilages on the left side, just above the free margin of the ribs. The growth was of six months' duration, lobulated, semi-fluctuating, painless and unattended by constitutional symptoms; it was growing slowly, and at present its outline was about five inches in diameter and irregularly circular. The diagnosis lay between a chronic abscess and a fatty tumor. An exploratory

incision, made by Dr. Cheever, proved the affection to be an abscess connecting, by a sinus of the size of a goose-quill, with the inner surface of the ribs above. The probe, passed into this opening, failed to reach any carious bone. The abscess was freely incised, and left entirely open for the unimpeded discharge of pus.

A young man, aged nineteen years, was submitted to an exploratory operation for a Pistol-shot Wound of the Knee. The wound had been received twelve hours previously. On the inner side of the right knee, opposite the lower edge of the patella, was the wound of entrance; no wound of exit was apparent. When the limb was straight, the probe could not trace the track of the bullet beyond the subcutaneous cellular tissue; but, on flexing the knee, a distinct opening into the joint was detected. Dr. Cheever enlarged the wound of entrance by a crucial incision, when it became apparent that the ball had struck the internal condyle of the femur at the inferior and posterior part, and, having splintered the bone here, had glanced and was lost either in the joint or in the muscles of the calf. The joint was filled with blood. The bullet was not found.

Dr. Cheever remarked that the chances were that the case would terminate in amputation. To give the patient the best present chance, however, Dr. Cheever made a crucial counter-opening at the outer side of the knee, and syringed the joint with cold water. The limb would be put on a splint, in a semi-flexed position, and the opened joint would be freely irrigated.

In speaking of the prognosis, Dr. Cheever alluded to the case of compound fracture of the patella, with extensive injury to the knee-joint, reported in the JOURNAL of December 25th ult. That case was terminating favorably, the patient recovering with an anchylosed knee.

Other operations, performed by Dr. Cheever, were the tying of Hæmorrhoids, and the incision of a Palmar Abscess resulting from a compound fracture of a finger.

F. W. DRAPER.

Correspondence.

LETTER FROM AIKEN, SOUTH CAROLINA.

(From an Occasional Correspondent.)

AIKEN, S. C., January 15, 1874.

MESSRS. EDITORS,—At a time when the rude blasts of winter are suggesting to many of your readers the propriety, if not the necessity, of seeking a place of refuge for many of their chronic cases of pulmonary disease, a few lines giving my impressions of Aiken may not prove unwelcome. Of late years, its claims as a health-resort have been frequently brought before the profession by the works of Drs. Coffin and Geddings, and, more recently, in an admirable article by Dr. Wm. W. Morland, which was published in the last volume of the JOURNAL. But it is not to these alone that Aiken is indebted for large numbers of invalids, who each year pour in from all sections of the country; for, previous to their appearance, the laudatory letters of Thurlow Weed and others had attracted a crowd of visitors large enough to exceed the limited accommodations of the town—one hotel and three or four boarding houses. As a result of this overcrowding, many were forced to seek refuge in miserably built shanties, open on all sides to draughts from without, and to content themselves with food that was simply execrable. I mention these facts, because the reports of the sufferers of that period have deterred many of our physicians from sending their patients to Aiken. The principle that "the demand regulates the supply" has rectified these evils, and Aiken can now boast of two hotels equal to any south of Baltimore, and the fare is fully as good as that of the first-class houses of Boston and New York. To those who cannot afford the luxury of hotel life, or whose tastes lead them to prefer the quietude of a more limited circle, the private houses offer every comfort. Hotel and boarding-house keepers seem to be fully

alive to the fact that their success depends upon the character and quality of their food, and rely principally upon the neighboring markets of Augusta and Charleston for their supplies.

On referring to a register kept at the Club Rooms, I find that, since 1870, the number of visitors has more than doubled. The town, although a little too much spread out, presents a neat and attractive appearance, and, with a small expenditure for evergreens, is capable of being made very beautiful. It was laid out when land was cheap, and, partly to diminish the risk from fire, and partly to prevent overcrowding, the projectors wisely determined to make the streets one hundred and fifty feet wide, and these constitute one of the chief beauties of the place.

The population is 1,800, one half of which are negroes of every grade of color, from the genuine Congo black to the yellow, and then upwards until the shade becomes so faint as to require the practised eye of a native to detect any mixture of races. The place is well provided with churches, there being no less than seven, five for the whites and two for the colored people.

Billiards, bowling and croquet, together with riding and driving, constitute the chief amusements. There is also a small theatre, in which, although not yet entirely finished, performances are occasionally given.

The town itself is situated in what is known as the Sand Hill region, a belt of country about thirty miles wide, extending from North Carolina through South Carolina into Georgia, and long noted for the salubrity of its climate. The soil consists of white sand, overlying a mixture of red sand and clay, which extends to a great depth. It is remarkable for its porosity, and even after the heaviest rains the water disappears from the surface with a rapidity that is truly wonderful. This rapid drainage of the ground not only contributes to the general healthfulness of the country, but also, by enabling the invalids to walk out within a few hours after a heavy rainfall, adds to the attractiveness of Aiken as a health-resort. As an evidence of the dryness of the soil, I would state that, on making wells, it is necessary to dig from one hundred to one hundred and fifty feet to reach water. Geologically, the Sand Hill region is said to "correspond with the point of transition from the tertiary to the primitive formation, and in some places presents an admixture of the elements characteristic of both." Such a soil is, of course, very poor, and, indeed, it is difficult to imagine how it is made to produce anything at all; but I am told that the farmers manage, by judicious cultivation, to make from a half to a whole bale of cotton to the acre, which is about an average crop for that staple. There are no water-courses in the immediate vicinity, the nearest stream being two miles distant.

The woods surrounding the town consist, for the most part, of lofty pines and an inferior species of oak called "Black Jack." These pine forests are very beautiful, and, in addition to their much lauded exhalations, afford shelter from the winds without materially interfering with the sunshine. The roads through them are, as a rule, quite hard and level, and a drive on a cool winter day is one of the most enjoyable features of Aiken life.

Aiken is about 600 feet above the sea level, and is the most elevated point in this section of country. The mean temperature of the six colder months is 52°, which is about the same as that of Mentone, and ten degrees colder than Florida. The temperature is, however, far from being uniform, and, like the whole of our Atlantic coast, is subject to sudden changes; but I doubt very much the possibility of finding a sanitarium east of the Rocky Mountains to which the same objection does not apply with even greater force. Any one coming to Aiken with the expectation of finding continuous warm weather during the winter will be disappointed, especially if he arrives in December or January, during which months the mercury sometimes falls to 21°, and has, at rare intervals, been known to touch 17°. But these extremes are very unusual, and never of long duration. They are, of course, unpleasant, and may necessitate confinement to the house for a day or two, but, thanks to the excellent ventilation afforded by the large open fire-places with which the rooms are heated, the invalid has a constant supply of fresh air, and does not suffer as he would in a closely built, furnace-heated house at

home. They are sure to be followed by days when, to use the words of an enthusiastic lay writer on Aiken, "the air seems so full of sunshine that it cannot hold it, but sends its exhilarating and electrifying sparkle, not only into the lungs, but into every tissue of the body." The language, although not very scientific, is very expressive of the grateful feelings of the writer. I have travelled over a very large portion of this continent, and also that of Europe, but nowhere have I ever found a climate so dry and bracing as that of Aiken during the clear weather of autumn, winter and spring. The annual amount of rain is about fifty inches, the greater portion being in summer. As far as I can learn, there are but three or four days in each month during which it is necessary for the invalid to remain altogether within doors.

The mean height of the barometer is 29·16 inches. The climate is essentially tonic in its character, and consequently well adapted to diseases of an asthenic type, especially cases of chronic phthisis. The local physicians complain, and, I think, with justice, of the loose manner in which patients are advised to go South, without specifying, in many instances, any particular locality, leaving it optional with them to stop at Asheville, at Aiken, or to keep on to Florida. Others advise them to try Aiken, and, in the event of its not agreeing with them, to go to Florida, and *vice versâ*. The consequence of this indefinite advice is that the patient, naturally discontented and anxious for change, runs off on the first approach of bad weather, without having given the first place a fair trial, and thus, in many cases, diminishes his chances of recovery. The study of climatology is the poor, neglected step-child of medical science in this country, and I do not believe there are a dozen physicians in the northern States who are conversant with the climatic peculiarities of the most noted southern sanitaria, and this, too, in a section where more than fifteen out of every hundred deaths are caused by consumption. There are few consumptives that would not derive some benefit from a residence in Aiken, and I have seen several persons in whom the disease has been entirely arrested. There is, however, a small number of cases for whom the air of Aiken is too bracing, and in which, for obvious reasons, a warm, moist atmosphere is better calculated to allay irritation and check the progress of the disease. Cases of chronic bronchitis, attended with much secretion, improve here very rapidly, whereas those characterized by a dry, hacking or spasmodic cough will do better in Florida or Nassau. Neuralgic cases I would advise to stay away, the stimulating properties of the air being more likely to aggravate than to allay their sufferings. With rheumatic patients it is a matter for experiment, some cases doing remarkably well. The same may be said of the so-called "asthmatics," except that the number of those who have obtained relief is much greater. Convalescents from long and tedious illnesses, like typhoid fever, &c., regain their strength and shake off lingering bronchial difficulties very rapidly in Aiken. And, lastly, but not least, for delicate children, whose constitutions have become impaired, either by hereditary or acquired diseases, I think the climate of Aiken cannot be surpassed.

I would refer those who are desirous of more detailed information to the resident physicians—Drs. Geddings, Coffin and Rockwell, all of whom are intelligent and experienced practitioners, and well posted in the class of cases they are called upon to treat.

Observations on Cholera.

Messrs. Editors,—Will you please print the following facts and conclusions of Dr. J. M. Cunningham, Sanitary Commissioner with the Government of India, in his Report of the Cholera Epidemic in India, in 1872. They have been condensed from a notice of Dr. Cunningham's Report in a late number of the *London Medical Record;* and they are especially interesting in connection with the opinions maintained in this Journal, in numbers of January 18th, March 1st, and December 20th, 1866, to which any of your readers interested in the matter are referred.

Yours, Observer.

CHOLERA—followed its common period of seasonal development; one remarkable feature was the occurrence of the disease at hill-stations. The fact that the epidemic attained its greatest violence at or about the same time in many places, separated from each other by hundreds of miles, is of great importance in an epidemiological point of view; the rise and fall of the disease corresponded remarkably in cantonments and cities adjoining; importation could not be traced; too much importance has been attached to pilgrims as carriers of cholera; no evidence that it was propagated along the main lines of communication; and the disease did not travel more rapidly than it used to do when there were no railways; no evidence of risk in attending on the sick; general direction of the disease, northwest; water theory inconsistent with the geographical distribution of the epidemic; not connected with any particular well; attacks in different sections simultaneous; maximum at the same period; so the decline; no case has ever been recorded in India in which there is good reason to suppose that cholera discharges have caused cholera; quarantine measures were of no use; enforced isolation very hard on the general population, and unnecessary; troops moved have never been known to be the means of spreading the disease.

Obituary.

DR. R. C. M. WOODWARD.

DR. WOODWARD, whose death occurred in St. Albans, Vt., on the 21st of November last, was one of a large family of physicians whose record is quite notable. He was a nephew of Dr. Theodore Woodward, of Castleton, who was the founder of the first medical school in Vermont. In addition to his uncle, Dr. Woodward had one brother, one son and several cousins who were graduated in medicine. A cousin, Dr. A. T. Woodward, of Brandon, and his son, Dr. George Woodward, of Johnson, are the only surviving members of this large family of physicians.

For the past fifteen years, Dr. Woodward has had a large and lucrative practice in St. Albans, and was but fifty-four years of age at the time of his death, which took place quite unexpectedly. He was an able, highly cultured physician, and was held in high esteem by his brethren in the profession.

DR. HENRY MILLER.

AT a meeting of the physicians of Louisville, Ky., the following resolutions were passed upon the death of Professor Miller:—

Resolved, That we have heard of the death of our distinguished brother with sincere sorrow.

Resolved, That it is our pleasure to testify to his spotless character as a citizen, his great and deserved reputation as a practitioner, his uniformly honorable career as a teacher, his eminent success as an author, his unblemished record in his relations with his brethren; to the entire confidence inspired by him among the sick entrusted to his care; to the valuable services rendered by him to the many medical societies which he fostered and instructed; to his admirable observance of all professional rules and requirements, as the result of which he signally secured dignity and respect for that profession which he so eminently adorned.

Resolved, That we tender to his family our sincere sympathy; that a copy of these resolutions be sent to them; to the daily press of this city; to the medical journals of the State; to all of the medical associations, domestic and foreign, of which he was either a regular or honorary member.

Resolved, That we will attend the funeral in a body, and unite with his very many bereaved friends in performing the last sad obsequies in behalf of one whose memory, his city, his State, his country and his profession will ever cherish with pride and admiration.

Medical Miscellany.

THE last report of the death of Dr. Livingstone, from dysentery, seems at length to be confirmed beyond a doubt.

"To bed this night, having first put up a spitting sheet, which I find very convenient."—*Pepys's Diary*, vol. i. p. 350.

To prevent surgical instruments from rusting, smear them occasionally with a little strong mercurial ointment.

DOUBLE PLACENTA.—Dr. I. D. Bogart reports a case of double placenta occurring in a delicate woman suffering from phthisis. One placenta was about two-thirds the size of the other, the cord of the smaller one being about eight inches long, and terminating in the main placental cord.—*The Canada Medical Record*, Jan., 1874.

MONSTROSITY.—At a recent meeting of the Surgical Society of Vienna, a girl was exhibited who, though but seven years old, possessed the breasts and sexual apparatus of an adult, and had menstruated regularly since the age of seven months. The weight of the child was seventy pounds.

"WHAT pleased me most, was Sir G. Ent [President of the College of Physicians] about respiration; that it is not to this day known, or concluded on, among physicians, nor to be done either, how the action is managed by nature, or for what use is it."—*Pepys's Diary*, vol. ii. p. 346.

REMOVAL OF THE VERMIFORM APPENDIX.—Mr. Bradley, of Manchester, in operating for the relief of a strangulated inguinal hernia, found the vermiform appendix lying in the opening, perfectly black and apparently lifeless, and accordingly removed it by means of a catgut ligature. At the end of a week, the patient appeared tolerably well, but imprudent eating induced severe vomiting, and he eventually died from exhaustion.—*British Medical Journal*, Jan. 24, 1874.

POISONING BY QUACK PILLS.—A man, aged 23 years, recently died in Hitchin, England, under suspicious circumstances, after having taken four or five pills obtained from a notorious quack, who styled himself "Professor" Morris. At the *post-mortem* examination, indications of irritant poisoning were found in all the principal organs, while a chemical analysis showed the presence of arsenic in the stomach, spleen, and in the pills remaining in the box from which the patient had taken the others. A verdict of manslaughter was found against the quack by the coroner's jury.

BLOODLESS OPERATIONS by constriction seem to have some drawbacks; among which are temporary paralysis of the vessels (the skin becoming intensely red after removal of the India-rubber); capillary bleeding, which is sometimes considerable; possible danger of putrid infiltration in cases with septic discharges; and paralysis of nerves from their too great compression against bones. Two cases of pressure on the median are reported, which lasted, however, only a fortnight, and one which was discharged in three weeks not recovered from.—*Medical Times and Gazette.*

SUBSTITUTE FOR TRANSFUSION.—Dr. Karst, of Kreuznach, proposes to substitute for transfusion the subcutaneous injection of defibrinated blood. He claims that, if a number of points be selected for the operation, from one to two ounces of blood may be readily introduced at one sitting. It is believed that this method may be employed in certain diseases characterized by anæmia, or chlorosis, as a means of imparting strength to reduced patients. In other conditions, such, for instance, as stricture of the œsophagus, it might take the place of nutrient enemata.—*Berliner Klinische Wochenschrift*, Dec. 8, 1873.

THE ARMY MEDICAL STAFF.—At a meeting of the Boston Society for Medical Observation held the 2nd inst., the following resolutions were unanimously adopted:—

Resolved, That, in the opinion of this Society, the Army Medical Staff is entitled to the same consideration in the matter of rank and pay as is accorded by law to other Army Staff Corps and to the Medical Department of the Navy.

Resolved, That the removal of the prohibition concerning promotions and new appointments in the Medical Staff of the Army is desirable in the interests of the public service, to secure such reliable and efficient medical attendance in cases of wounds and sickness as the government should provide for its troops.

NOTES AND QUERIES.

A CORRESPONDENT sends the following reply to a query in the JOURNAL of Feb. 5th, concerning the technical expressions of specialists:—

In testing the hearing, it is customary to measure the distance at which the watch and the voice can be heard. Therefore, translate "W. l. $\frac{3}{4}$'," watch, left, three fourths of an inch; "V. l. 10'," voice, left, ten feet; the marks (") (') being very commonly, if not universally, used in scientific works to express inches and feet as well as seconds and minutes.

BOSTON, February 4, 1874.

MESSRS. EDITORS,—My attention has been called to a circular in which my name is given, among others, as ready to vouch for an article called "Aromatic Liquid Pepsin." It is sufficient to say that the use of my name is entirely unauthorized, and I doubt not the case is the same with the other gentlemen.

It is possible I may have seen the article; I am in no way familiar with its appearance or properties. I have never prescribed or used it, and, with my present distrust of unofficinal preparations of pepsin, I certainly never shall. FRANCIS H. BROWN.

HELLER'S URINOMETER.

MESSRS. EDITORS,—Inquirer "P" in the JOURNAL of January 22d ult., is not the only sufferer who possesses a Heller's urinometer and does not know how to use it.

The scale of Heller's urinometer is divided into *eight* principal divisions, each of which corresponds to *seven* degrees of specific gravity. Again, each of these divisions is subdivided into *four* equal parts, so that each subdivision corresponds to one fourth of seven, or one and three fourths degrees of specific gravity. The scale is, therefore, graduated for liquids having a specific gravity of from 1000 to 1056.

It is an extremely convenient instrument, when we have but a small quantity of urine at our disposal, and is far more accurate than many of the *cheap* urinometers, some of which I have found to vary eight or ten degrees in the most important part of the scale, between 1020 and 1030. E. S. W.

DIED,—In this city, 19th inst., Dr. Abijah W. Draper.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending February* 14, 1874.

Boston, 147; Worcester, 18; Lowell, 24; Milford, 4; Chelsea, 5; Salem, 7; Lawrence, 10; Springfield, 11; Lynn, 14; Gloucester, 11; Fitchburg, 4; Taunton, 7; Newburyport, 5; Somerville, 12; Fall River, 12; Haverhill, 6; Holyoke, 4. Total, 301.

Prevalent Diseases.—Consumption, 54; pneumonia, 41; scarlet fever, 16; typhoid fever, 14.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Feb. 21st, 143. Males, 73; females, 70. Accident, 2; apoplexy, 4; asthma, 1; aneurism, 1; inflammation of the bowels, 1; bronchitis, 4; inflammation of the brain, 2; disease of the brain, 3; burned, 1; cancer, 2; carbuncle, 1; consumption, 22; convulsions, 3; croup, 1; debility, 5; diarrhœa, 2; dropsy, 3; dropsy of the brain, 4; diphtheria, 1; erysipelas, 2; scarlet fever, 11; typhoid fever, 1; disease of the heart, 3; hæmorrhage, 1; disease of the hip, 1; homicide, 1; intemperance, 4; disease of the kidneys, 2; disease of the liver, 1; congestion of the lungs, 3; inflammation of the lungs, 15; marasmus, 7; neuralgia, 2; old age, 2; ovarian disease, 1; pleurisy, 2; pyæmia, 1; puerperal disease, 1; premature birth, 3; peritonitis, 2; rheumatism, 3; stricture, 1; scrofula, 1; teething, 2; tumor, 1; whooping cough, 3; unknown, 3.

Under 5 years of age, 51; between 5 and 20 years, 12; between 20 and 40 years, 26; between 40 and 60 years, 32; over 60 years, 22. Born in the United States, 88; Ireland 40; other places, 15.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

CASES OF GASTRALGIA TREATED BY CENTRAL GALVANISM.

By GEORGE M. BEARD, M.D., New York.

THE terms gastralgia, angina pectoris and cardiac neuralgia, are used somewhat vaguely and indiscriminately. The first term, gastralgia, is applied to neuralgia of the stomach; it may or may not be accompanied by spasm, by pyrosis, heart-burn, flatulency, or other symptoms of dyspepsia. The most distressing accompaniment of the disease is spasm, which sometimes draws up the muscles of the stomach and holds them as if in a vice. In its relation to dyspepsia, gastralgia may precede, accompany or follow it; may create dyspeptic symptoms by the disturbance and debility it excites; may complicate the ordinary agonies of indigestion, or it may come on as a resultant of long-continued dyspepsia. Just as there may be dyspepsia without gastralgia, so there may be gastralgia without dyspepsia. In gastralgia, the pneumogastric is involved, and it is probable that the whole solar plexus may share in the disturbance. The two noteworthy features of gastralgia are intensity of the distress and its periodical character. Dr. Michel Peter, of Paris, has called attention to what he terms diaphragmatic neuralgia; the symptoms of this affection are spontaneous pains at the base of the lung and in the shoulders, increased by pressure; tender points near the anterior insertions of the diaphragm at the seventh, eighth, ninth and tenth ribs (especially marked at the ninth, at the posterior insertion of the last rib and at the lateral portion of the neck beyond the internal head of the sterno-mastoideus, where the phrenic nerve is superficial, and on the sternum at the level of the second or third intercostal space); tenderness of the second, third, fourth and fifth cervical vertebræ; irradiation of pain to shoulders and neck; and, finally, difficulties of respiration, of mastication, of deglutition and of movement of the left arm.*

A comparison of these symptoms with the symptoms generally regarded as indicative of intercostal neuralgia, gastralgia, angina pectoris, shows clearly enough the difficulty of establishing the existence of pure and simple diaphragmatic neuralgia; many of the symptoms laid down by Dr. Peter as of diaphragmatic neuralgia are certainly not peculiar to it, for they are found in those cases that are commonly classed as gastralgia, angina pectoris and intercostal neuralgia. The tenderness of the sternum which he speaks of, and also the tenderness of the cervical vertebræ, are found in thousands of patients who never

* Cincinnati Lancet and Observer, May, 1872.

suffer from neuralgia, as such, in the diaphragm or heart or stomach. It is not unreasonable to believe that such a disorder as diaphragmatic neuralgia, single or uncomplicated, may exist, but it is probable that it usually exists, if at all, as a part or complication of gastralgia or angina pectoris, and we may fairly suppose that neuralgia may pass from the phrenic to the pneumogastric nerve at short notice.

Dr. Anstie has pointed out the relation that exists between asthma and gastralgia and facial neuralgia; reasoning from analogy and from observation, it would appear to be entirely possible that neuralgia of the phrenic nerve might be included in the same family. It is certainly true that a constitution which is liable to suffer from gastralgia is also liable to suffer from facial neuralgia; and it is equally certain that these diseases may, so to speak, interchange at different periods of life, and may take the place of each other. The nervous diathesis may, in early life, manifest itself by facial neuralgia, or sick headache; later, by gastralgia or angina pectoris; and, last of all, develope into asthma. Like all manifestations of the nervous diathesis, these different neuralgias are subject to hereditary laws, and may be handed down, with various modifications, and interchange from generation to generation.

The following cases will illustrate the propositions which have been advanced above:—

Case I.—*Severe Gastralgia of fourteen years' standing; Periodical Attacks at Night; Rapid and Permanent Cure under Central Galvanization.*—Dr. S. J. H., a physician aged about 36 years, consulted me in the autumn of 1870. For fourteen years he had suffered from attacks of gastralgia of a most violent character; these attacks came on usually at night, while in bed, after midnight, before or about two o'clock; the attacks would last sometimes several hours, and the pain was of the most distressing character. Of the various methods of relief that he had used, alcoholic liquors seemed to be the most efficacious, but the respite they caused was only temporary. The appearance of the patient suggested robust health; nutrition was well maintained and the functions were generally well performed.

Examination gave little information. Disease of the heart had been suspected, but the careful and repeated examinations of Dr. Thayer established the fact that there was no disease of that organ. Tenderness of the epigastrium in one spot sometimes, but not always, existed. My diagnosis was neuralgia, in which the solar plexus had a share. I suggested central galvanization. The patient had previously tried faradization without any benefit. I had little hopes of helping the patient; the persistency and fixity of the symptoms and their periodicity gave an unfavorable prognosis, and only by my urgent solicitations did the doctor allow me to experiment on him.

Treatment by central galvanization was commenced January 3, 1871, and was kept up for two months, two or three times weekly. In less than two weeks, benefit was apparent; the periodicity and violence of the attacks were somewhat modified, and in a month it was evident that the disease would yield more or less permanently to the treatment. Occasional relapses occurred, as always in similar cases, reminders of the former sufferings, showing that the evil spirit was not wholly cast out; but in three months from the time the treatment was commenced, the patient regarded himself as well. Since that time,

he has relapsed but once, and then as a result of bad hygiene, and he was promptly relieved by a few applications. The only question now remaining was, how permanent is this relief? Already, more had been done by central galvanization than by any one or by all other methods of treatment combined; but had electricity so modified the nutrition of the nerves that they would not again return to their abnormal condition? Two years have elapsed; I have frequently met the patient, and he remains well, though constantly engaged in laborious duties.

Case II.—*Gastralgia of six years' standing, permanently Cured by Central Galvanization and General Faradization.*—Mr. S., aged 28, was referred to me by Dr. Thayer, Nov. 25th, 1871. The patient was a young merchant who had an excellent constitution, and who had never known disease of any kind, by personal experience, until about six months before I saw him. His appearance indicated health, and only his own statement suggested the possibility that he was a sufferer. The attacks of gastralgia were his only symptoms; his appetite was fair, and his sleep was not disturbed by pain; his capacity for muscular or cerebral toil was excellent. The attacks were not so violent or so frequent as in other cases that I had seen, but they were sufficient to greatly annoy and depress the patient; and there was less periodicity than is observed in some cases, and there was more of dull aching than of sharp or acute pain.

Encouraged by my success in far severer cases, I gave the patient a favorable prognosis, and at once began the use of central galvanization alternately with general faradization. Relief was effected during the first week, and, by December 1st, the patient was almost entirely free from pain. Central galvanization seemed to be the more efficacious of the two methods employed; I arrived at this judgment by observing the immediate effects of the treatment the same day that the application was made. The usual relapse occurred, and caused discouragement; but the patient persevered, and by the middle of December—three weeks from the time the treatment began—he was entirely restored, and, up to the date of writing (July 1, 1872), he has remained well.

Case III.—A medical friend of mine, a gentleman of middle life, had been troubled for a number of weeks with attacks of gastralgia, accompanied with constant dyspeptic symptoms of a most severe character. He had become pale, and had lost considerable flesh. The attacks frequently came on at night, and compelled him to rise and use powerful counter-irritation with mustard or bisulphide of carbon.

In the way of treatment, he had used general faradization, in the application of which method of electrization he was well skilled, and had adopted a rigid system of diet, but without effect.

He consulted me in the fall of 1871, and I at once began to treat him by central galvanization, and with speedy effect. In a few weeks he was entirely cured, and to this day has remained well, save one brief relapse, caused by over-indulgence or exposure. The dyspeptic symptoms, as well as the gastralgic, disappeared.

In the above cases, I have laid much stress on the method of central galvanization, because in all of them it appeared to have such striking effects. I would not by this give the impression that in all such cases the method must be used in its entirety; probably the placing of the

negative pole over the stomach and the positive over the spine might suffice; but, as a rule, in all diseases complicated with debility, I secure a larger reward from the complete method than from a fraction of the method.

If I should judge from my experience up to this date, I should say that the prognosis of gastralgia, under electrical treatment, is better than that of any other form of neuralgia under the same treatment. In the worst forms of facial neuralgia and sciatica, I often find incomplete results or failure; but, thus far, all my cases of gastralgia have recovered.*

A CASE OF MEDULLARY CANCER OF BOTH OVARIES.

By George Holmes Bixby, M.D., Boston.

On February 11, 1873, I was called to see Mrs. P., wife of a physician residing in the vicinity of Boston. The patient was forty-eight years old, a native of Massachusetts, a member of a large family; of long-lived parents, in whose histories there appeared no evidences of hereditary mental or physical disease. Menstruation had been regular since the fourteenth year. She married at twenty-three, and has given birth twice; the first time, two years and six months after marriage; the second, five years after the last. Both children were nursed. She now determined to have no more children. No means were employed to prevent pregnancy; but she acknowledged that she had taken certain precautions. The menses appeared regularly since the last confinement, but had been absent since December, 1872.

Early in the spring of 1872, the husband observed a change in the demeanor and appearance of his wife; and very soon after this, Mrs. P., formerly a bright, cheerful and active woman, became listless, and gradually lost her former vivacity. She soon began to suffer from constipation, gastric irritation, and general malaise, with an entire absence of pain. In usual health, her weight was one hundred and seventy pounds, but at present it was very much less. In July of the present year, she fell heavily upon the sacrum. This accident confined her to the bed ten days, and tended in all respects to aggravate her sufferings. Fearing lest displacement of the uterus might have been caused by the recent fall, a vaginal examination was instituted by the husband, and ante-version diagnosticated. December 12, 1872, Dr. Ephraim Cutter, of Woburn, was consulted, with a view to some mechanical treatment, but none was deemed necessary. Later in the month of December, the patient was seen by Prof. D. H. Storer, of Boston, and Dr. Gilman Kimball, of Lowell. The opinions of these gentlemen I did not learn at this time.

The condition of the patient at my first visit was as follows. She was in bed; she appeared of medium stature, with light, sandy complexion, and an unnatural flush of the cheeks. Her neck and shoulders and superior extremities were emaciated. The mammæ were atrophied. The abdomen was generally enlarged to the size of pregnancy at the eighth month. The inguinal glands were enlarged. The inferior extremities were emaciated.

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* The general subject of the treatment of neuralgia by electricity is discussed in my article on that subject in the *London Practitioner* for September, 1873. For a description of my method of central galvanization, see *New York Medical Journal*, October 12, 1872.

On palpation, nodules were indistinctly felt in different parts of the abdominal walls. The inguinal glands were indurated. Percussion showed dulness over the lower lobe of both lungs; the liver and spleen appeared of normal size; the abdomen was tympanitic in all parts, more marked in the flanks. On auscultation, the heart-sounds were feeble, but regular; there was obstruction of the respiration in the lower lobe of both lungs.

The external genitals were normal; the vagina was five inches in length, the cervix uteri of normal size. The os was patulous. The uterus was anteverted and fixed; its cavity two and a half inches deep. Douglas's fossa was filled with a mass that extended across the pelvis, posteriorly, and on either side of the uterus. On bi-manual examination, the sound in the uterine cavity, that organ was found firmly bound down to a mass behind. By rectal exploration, the intestine was found constricted; passing beyond the constriction, the finger came in contact with a round, regular mass, the size of a fœtal head.

The weight of the patient at this time was one hundred and forty pounds, there having been a loss of thirty pounds within a few months. The constipation and gastric troubles persisted; her appetite was indifferent; her nourishment consisted only of milk and lime-water. The diagnosis was malignant disease of some pelvic organ.

February 25th, I saw the patient again, Dr. Ephraim Cutter, of Woburn, and the husband being present. By a bi-manual examination, I thought I detected deep-seated fluctuation in the growths behind the uterus. I therefore introduced into the same a small exploratory needle; nothing but blood was elicited.

March 31st, the exploratory puncture was again resorted to, with a much larger needle, with the same negative result as on the first occasion. Since the last visit, emaciation had been rapid, and as the fat in the abdominal walls was absorbed, the above-mentioned nodules became more prominent to the feel. I noticed, also, for the first time, decided evidences of fluctuation in the abdominal cavity. I informed the husband that there was no doubt in my mind in regard to the diagnosis, and advised palliative treatment.

After this date, I saw no more of the patient. The husband reports that all the symptoms steadily grew more alarming, and, in addition to her former troubles, there ensued an excessive secretion of the salivary glands. The nature of this secretion was so nauseating that if the least quantity was allowed to pass into the stomach, it was instantly followed by emesis. This condition of things necessitated constant drooling. Dr. Cutter, who saw the patient since my last visit, on May 1st, with the approval of Dr. Kimball, tried the effects of electrolysis.

The following is a report of his proceedings:—

"Applied the constant current from a new form of my own of a stationary carbon and zinc battery, sixteen plates (eight pairs) nine by six inches, each. The carbon electrode, of a pattern peculiar to myself, was pushed three and a half inches into the hard, abnormal tissue in Douglas's fossa. The zinc electrode was a wet sponge, insulated with a glass handle; the latter was applied to the hypogastric region. A current was passed through for seven minutes. No profound effects were produced, not much pain or distress. Electrolysis was resorted to as a tentative thing, with faint hope of success."

The patient sank on the 9th of May, apparently from starvation, for no food was retained during the last few days of her life.

Autopsy, by Dr. R. H. Fitz, of Boston, twenty-four hours after death.

Body much emaciated. Rigor mortis slight. Abdomen distended. A tumor, the size of a peach-stone, appeared in the right inguinal region.

Several small tumors, apparently of the size and shape of oyster crackers, were felt through the abdominal walls, apparently on the inner peritoneal surface.

Pericardium contained about an ounce of clear, yellow fluid; the surface of the membrane healthy. Heart flaccid, valves and cavities healthy. Muscular substance dirty red, slightly opaque, friable. Left lung adherent at base. Pleural surface over this portion of the lung of a slate color. Directly beneath, apparently in the thickened pleura, was a bloody fluid. The lower lobe of both lungs œdematous; the apices presented thickened patches of chronic pleurisy, without adhesions. The lungs were moderately emphysematous, throughout "drumy." In each pleural cavity, there were about three ounces of reddish yellow fluid. The diaphragmatic surface on the right side presented numerous sub-pleural nodules, gray and vascular, soft, medullary, of the size of a cherry-stone kernel. Similar nodules occupied a corresponding position in the left side, and beaded lines of like appearance were found in the middle intercostal spaces of the side beneath the pleura. The mammary glands presented nothing abnormal to the touch.

The abdominal cavity contained some four quarts of opaque, red fluid. The entire peritoneal surface was studded with nodules and granules, resembling those beneath the pleura. The great omentum was contracted, adherent to the abdominal parieties, near the umbilicus, and to the loop of small intestines; it was infiltrated with the gray, medullary mass. The spleen was united to the stomach by firm, fibrous adhesions; the organ was small, dark colored, soft; its follicles, indistinct.

Both kidneys were anæmic, their capsules detached. The pelvis of the right kidney was considerably dilated and filled with urine. The organs were pale, somewhat translucent; the cortical tubules indistinctly recognized, apparently not fatty. The liver was small and adherent to neighboring parts. The portal region was filled with masses of malignant disease, which had extended into the substance of the organ in the vicinity. One nodule, the size of a plum, appeared, in which no evidence of fatty or cheesy degeneration was detected. The gall-bladder was healthy. The stomach was small, its mucous membrane thickened and opaque, yellowish white, slightly ecchymosed along the greater curvature, especially at the cardiac portion. A sub-mucous nodule of malignant disease was found near the pyloric orifice, as large as the kernel of a pea-nut, apparently connected with the diseased mass formed of omentum and new formation at the portal fissure. The mesenteric glands and those at the root of this fold were apparently unaltered.

The bladder, uterus, ovaries and rectum formed a compact mass, of the size of an infant's head, entirely filling the pelvis, to the surface of which a coil of small intestine and the cæcum were adherent. On

enucleating this mass, the uterus was found to contain, in the anterior wall, a fibro-myoma, of the size of a bullet; the cavity presented no abnormal appearances. The ovaries were enlarged to the size of small peaches, though adherent to the surrounding structures. On section, they presented an exceedingly soft, reddish-gray and, in parts, grayish yellow, opaque mass, in which were, occasionally, hæmorrhagic patches, and, everywhere, numerous small bloodvessels. The right Fallopian tube was distended to about the diameter of the small intestine, and filled with a clear, yellow fluid. The left was not recognized as such; a careful dissection for the purpose of ascertaining its condition was not made. The rectum pursued a somewhat irregular course through the mass of disease. It was distended very much below the point at which the pressure from the diseased ovaries existed, compressed as it passed through. Sub-mucous nodules existed near the centre of the disease. The mucous membrane was everywhere intact.

On microscopical examination of the new formation, it was found to be made up of a loose, friable, fibrous stroma, containing bloodvessels, and enclosing moderately-sized alveoles, in which were large numbers of cylindrical cells, with large, round nuclei.

The Madras correspondent of the *Medical Times and Gazette* of Dec. 20, 1873, writing of the diseases and condition of the patients in the General Hospital there, states that "one thing which strikes a European visitor at first sight is the number of cases which have been treated by native remedies, most of which remedies, so far as I have seen, are either imbecile or cruel; the cruel predominate. There are compounds of irritating shrubs with milky juice, with red pepper, and coarse preparations of copper and mercury, which are recklessly applied for abscesses, tumors, and rheumatism, to discuss the humors; and they are like some brushes which a Frenchman advertised for rheumatism—if they don't take away the pain, they do the skin. One man, for instance, was brought in with a slough over the scrotum, which had gone clean down to the bone. But this is nothing to the damage done to the eye by irritating compounds put into it, sometimes to rouse a patient from lethargy, or coma, or epilepsy, and sometimes to relieve diseases of the eyes by extracting the tears, which is accomplished to perfection. One case I saw of the results of native treatment which was lamentable enough. A poor man had broken his thigh, and, by some recondite sense of fitness, the persons who treat fractures are potters, who apply bamboo splints, and then plaster the limb with clay. The result, in this case, was gangrene of the lower leg, and the poor fellow was brought in with the tibia and fibula perfectly denuded of flesh, and the calf rotted away nearly up to the knee." Amputation was performed, but the patient was carried off by tetanus within a few days.

The magnitude which the diseases attain is remarkable, owing to the reluctance of the native inhabitants to come under European treatment, and to the time wasted in native treatment. "Tumors of such sizes, and strictures so complicated with fistulæ, are not to be seen in Europe. The prevalent diseases among the natives are phthisis and Bright's disease. This may perhaps stagger some of our brethren at home, who are in the habit of considering a warm climate—and most justly—as a panacea in pulmonary and renal disease."

Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

Osteology.

The Position and Direction of the Foramen Magnum have long been recognized as of great importance in the comparative study of human and animal heads. Daubenton, who called attention to it in 1764, appreciated that the direction of the foramen magnum depended upon its position, that as in lower types it was situated further back, it also became more nearly vertical. In order to determine the direction of the line running from the front to the back of the foramen, it was evidently necessary to measure the angle it forms with some fixed line; and for this Daubenton chose one passing from the posterior border of the foramen to the lower border of the orbit, assuming it to be projected on the same plane as the other. The angle thus formed is still known as Daubenton's. Broca has lately gone into this subject in the *Revue d'Anthropologie* (vol. ii. No. 2, 1873), and, after pointing out some defects of Daubenton's system, has introduced some modifications which deserve mention in detail. Daubenton had apparently overlooked the fact that, though the line of the foramen usually fell below the other, it sometimes passed above it, in which case it would be necessary to put the sign minus (−) before the number indicating the angle; but, apart from this and from the practical difficulty of applying his method, it is unphilosophical, in measurements of the cranium, to take for a starting point a line which depends upon the formation of the face. Moreover, the direction of this (supposed) fixed line must vary according to the size and shape of the orbits. To remedy this, Broca proposes that the fixed line should run from the posterior border of the foramen to the root of the nose, that is, to the naso-frontal suture, and calls the angle thus formed the *second occipital* angle. This fixed line, however, is still subject to variation from two causes. The first of these is the variation in the length of the skull, the second that of the size of the foramen. To do away with the latter source of error, he has introduced the *basilar* angle, which he considers the most constant of the three. This is obtained by drawing a line from the naso-frontal suture to the anterior instead of the posterior border of the foramen, and by bringing the line showing the direction of the foramen forward so as to cross the other. The results gained by these three methods correspond in the main very well, though by no means uniformly. The basilar angle is largest of all; that of Daubenton the smallest. Broca finds that the latter may vary in man from $+19°$ to $-16°$, but that when it is below $-12°$, the formation is pathological. The mean value of Daubenton's angle in the Caucasian skull does not appear to be far from nil; he himself set it at about $+3°$. In man, the second occipital angle is eleven or twelve degrees greater than that of Daubenton, and four or five degrees less than the basilar. It is easy to see that all these angles increase as the foramen in the lower races and in animals becomes more vertical. A special instrument is necessary for measuring these angles, unless the skull is bisected.

The Occasional Persistence of the Frontal Suture is discussed by Dr. Simon, of Hamburg, in *Virchow's Archiv* (vol. 85, parts 3 and 4). He finds that it occurs in nearly ten per cent. of Caucasian skulls. He contradicts Hyrtl's statements, first, that it is more common in female than in male heads, and, secondly, that it exists after the obliteration of the other sutures, though he thinks that when it is present, all the sutures have a tendency to remain open. He corrects, also, the commonly received error that the frontal suture is a continuation of the sagittal; in point of fact, it begins, almost invariably, on one side of the latter. According to Simon's experience, the persistent suture is found almost wholly in skulls of the broad type; he has never seen it in a low, narrow forehead, and agrees with Hunauld that it is caused by, or at least occurs with, a rapid development of the brain and a slow one of the bones.

The Structure of certain Parts of the Head is a subject on which Professor Gruber, of St. Petersburg, contributes four papers to the second, third and fourth parts of *Reichert and DuBois Reymond's Archiv* for 1873. He describes several peculiar anomalies of the upper jaw, of which the following are the most interesting.

First, a case in which the part of the superior maxilla supporting the malar bone is, on one side, a distinct piece, while on the other, the separating suture is visible only on front.

Secondly, a case in which, the horizontal processes of the palatals being very small and not meeting in the middle, the hard palate is completed by prolongations of the median parts of the maxillary bones. These are not sufficiently developed to form the usual spine, but, on the contrary, leave a shallow median notch. He calls this a gorilla-like formation, as it certainly is, as far as the relation of the maxillary and palate bones is concerned; but there is reason to doubt if the median notch is as constant in the skull of the gorilla as he considers it. It is interesting to notice that in the chimpanzee, the relation of these bones is the same as in man.

Thirdly, a case of supernumerary bones in the palate, lying in contact, one on each side of the median line, directly behind the intermaxillary bones, and forming, together, a nearly symmetrical figure.

Gruber's next paper is on the *maxillo-temporal intra-jugular arch*, which, in plain language, is a prolongation of bone between the zygomatic process of the temporal and the outer part of the superior maxilla, under cover of the malar bone, against which it lies. It is a very rare anomaly, as in about 4,000 skulls he has found only 24 examples of it, 7 skulls having it on both sides, and 10 on one side. This arrangement is normal in the pig, the hedgehog, the rhinoceros, the tapir and the horse. This arch is not to be confounded with the infra-jugular one, which is formed by the same bones meeting below the malar so as to be visible from the outside. There is but one case of this anomaly on record.

Gruber also describes an extra bone in the zygoma, appearing at the junction of the processes of the malar and temporal bones, being a continuation sometimes of one, sometimes of the other, and lying, consequently, on the lower or the upper side of the arch, as the case may be. Gruber has found this bone but ten times in his large collection. He considers it an accidental epiphysis, and not of the nature of a Wormian bone.

The same author also writes of the posterior opening of the *inferior dental canal*, of the *mylo-hyloid groove*, and of the bridges that may occur over one or both. It is common to find the spine which guards the anterior border of the beginning of the canal considerably developed, and it not rarely extends backward some way over the opening, in which case he calls it the *lingula*. If more developed, it forms a bridge which may even be double. Similar bridges may pass over more or less of the mylo-hyoid groove, making it a partial canal. Gruber mentions one case, the only one on record, in which this groove was present in addition to an extra canal.

The reporter may, in this connection, refer to a paper in the *American Journal of the Medical Sciences* for October, 1873, in which he calls attention to a by no means uncommon formation of the jugular fossa, which is ignored in anatomical works, and in which he shows that the foramen and fossa are almost always larger on one side of the head (usually the right) than on the other, and that the neighboring foramina are usually larger on the same side as the larger jugular foramen.

Myology.

Lesshaft, of St. Petersburg, has published, in *Reichert and DuBois Reymond's Archiv*, a valuable paper on the muscles and fasciæ surrounding the urethra. The author has worked for eight years on the muscles and fasciæ of this region, and during that time has dissected 210 perinea *in situ*, besides 80 specimens of detached perineal organs. His review of the literature of the subject is clear and comprehensive, and his whole tone and method tend to inspire confidence in his results. The first point discussed is Wilson's muscle, which has been variously described under different names, and the very existence of which has been denied. Lesshaft quotes Wilson's original account of it in the *Medico-Chirurgical Transactions* for 1812, which it seems worth while to reproduce :—"In my lectures on the organs of generation, I have, for these last ten years, demonstrated to the students attending in Great Windmill Street, two very distinct, fleshy bellies, belonging to muscles of triangular shape, united below by one common tendon, but each having a separate tendinous attachment to the inside of the symphysis of the pubes, and which are so placed as to surround the membranous part of the urethra. The tendon belonging exclusively to each muscle is at first of a round shape, but soon becomes flattened as it descends ; it is affixed to the back part of the symphysis of the pubes in the adult, about one-eighth of an inch above the lower edge of the cartilaginous arch of the pubes, and nearly at the same distance below the attachment of the tendon of the bladder, to which, and to the tendon of the corresponding muscle, it is connected by very loose, cellular membrane. The tendon descends at first in contact with, and parallel to, its fellow ; it soon becomes broader and sends off fleshy fibres, which also increase in breadth, and, when near to the upper surface of the membranous part of the urethra, separate from those of the opposite side, spread themselves on the side of the membranous part of the urethra through its whole extent, then fold themselves under it, and meet in a middle tendinous line with similar fibres of the opposite side." This, Lesshaft calls *constrictor urethræ membranaceæ* or *constrictor isthmi urethralis*, a name used by Müller (who denied the existence of this muscle) for another. He has never seen the

round tendon of origin, described by Wilson, but finds that the muscles arise from the walls of the veins, which form the plexus of Santorini above and by the side of the prostate, and from fibrous tissue which may reach to the symphysis. The fibres spread, fan-like, forward and backward from this origin, the posterior ones being lost in the sides of the prostate, the others running along the sides of the membranous urethra, covering some few deeper circular fibres. The more superficial fibres become tendinous, and end in the lower part of the recto-vesical fascia and in the perineal septum. The action of this muscle is to compress the membranous portion, and also to pull open the walls of the venous plexuses, thus being, physiologically, antagonistic to the erectores and to other apparatus "*ad refluentem sanguinem retardandum.*"

According to Lesshaft, there are three transverse, perineal muscles, of which the middle and deepest correspond to the two usually described. His superficial one occurs so very rarely that we are at a loss to see why it should be considered a normal structure.

He describes, also, a *musculus transversus urethræ*, which, though nearly constant, has been generally overlooked or misinterpreted in man. Guthrie and Müller apparently thought it a part of the constrictor, though it is a dilator of the urethra. It arises from the inner surface of the descending ramus of the pubes, runs downward and forward over the anterior (superior) wall of the urethra, where it is lost. Some fibres run over the dorsal vein, which is compressed by their contraction, while the upper wall of the urethra is simultaneously raised.

Lesshaft's account of the fasciæ is clear and careful, but we do not see that it adds very materially to what was already known.

(To be concluded.)

Dislocation of the Spine: Reduction.—The following case, reported by Dr. L. W. Bliss, is taken from the *Transactions of the Michigan Medical Society:*—

A man, aged 41 years, was superintending the raising of a stick of timber, under which he had his shoulder, when it fell, carrying him beneath it, forcing his breast forward upon his knees, dislocating the spine at the eleventh dorsal vertebra, and fracturing the ninth, tenth and eleventh ribs at their surgical neck, and the spinous process of the eleventh dorsal vertebra. He was removed from beneath the timber in an almost insensible condition, from which he recovered in about one-half hour, with complete paralysis of that portion of the body below the dislocation. An attempt was made to replace the vertebra by pressure, which failed, and extension and counter-extension were followed by a similar result. The surgeon then knelt upon the floor, and stationing assistants at both extremities of the patient, he directed the body to be forcibly flexed over his knees as a fulcrum, while one hand was placed upon the dislocated part. In this manner, a reduction was effected, the spine resuming its natural appearance when the body was extended. In three minutes after the reduction, the patient was able to move his feet, and sensibility returned, while the power of motion was recovered in one-half an hour. With the exception of retention of urine, lasting three days, no untoward symptom supervened. The patient was confined to bed for seven weeks, and availed himself of the assistance of crutches for five months.

Bibliographical Notices.

Transactions of the Minnesota State Medical Society. Minneapolis. 1873.

Transactions of the Medical Society of the State of Pennsylvania. Philadelphia. 1873.

Transactions of the New Hampshire Medical Society. Concord. 1873.

THERE are few medical publications which we read with greater interest, or from which we derive more benefit than those emanating each year from the different State Societies. It is not to be denied that these volumes contain very much in common, and a good deal to which the term "arid" might with propriety be applied. On the other hand, we are pretty sure to find served up some rare and interesting clinical cases, while the addresses of the presiding officers usually furnish a fair epitome of the present knowledge and the recent theories upon the various topics with which they deal, thus contributing to the diffusion of improved ideas. We have observed with regret, of late years, a growing tendency to add unnecessarily to the size of these volumes, by the insertion of a mass of crude and trivial matter, hardly worthy to survive the occasion which gave it birth; and we would take, therefore, this occasion to suggest to the committees on publication that the bulk of the volume should be regarded as of less consequence than the quality of its contents, and that very much of the *padding* which serves to multiply the leaves of these "transactions" should be suffered to remain in manuscript form, thereby lessening the labor of compilation and the work of the printer.

In the three volumes which have accumulated upon our hands, and whose titles are placed at the head of this article, will be found an unusual amount of instructive matter, and we take pleasure in placing before our readers a notice of a portion of their contents.

At the meeting of the Minnesota State Society, held in Rochester, the annual address was delivered by the President, Dr. W. W. Mayo, his subject being "The Relations of Physicians to the Public and Each Other." In a paper on "Phthisis as related to Syphilis and Scrofula," Dr. H. C. Hand cites statistics, besides introducing cases in detail, to show that phthisis is more common in syphilitics than in non-syphilitics. He maintains that syphilis predisposes the patient to acute inflammation of the respiratory organs, and is thus a frequent cause of phthisis, the form so produced being the pneumonic. A short but practical paper on the "Test for Arsenic," was read by Dr. F. Lessing, and an essay on "Catarrhal Inflammation as an Element of Uterine Disease," by Dr. F. Staples, which is illustrated by three excellent wood-cuts of the microscopical appearances of the different secretions of the vaginal canal, both healthy and morbid. From the report of the committee on surgery, we learn that five operations for ovariotomy have been performed in this State, every one of which has resulted fatally.

Of the seven different papers contained in the transactions of the Pennsylvania Society, that of Dr. Benjamin Lee is worthy of special attention from the novel theory advanced with regard to spinal caries. Inflammatory and subsequent ulcerative changes in the spinal cord are not unfrequently induced, according to this writer, by whooping cough. The truth of this theory he attempts to substantiate by introducing five cases, all presenting the history of children previously healthy, and whose parents were in good health, in whom symptoms of spinal inflammation appeared shortly after a severe attack of whooping cough. The practical lessons deduced by Dr. Lee from this theory is, that cases of whooping cough should be carefully watched during the period of convalescence, and proper warning given upon the very first symptom indicating a complication of the spine. It is also intimated that, by applying some simple form of support to the spine, during the progress of a severe case of this malady, we may not only give relief during the paroxysm of cough, but also, by protecting the spine from shock, ward off the impending danger of caries.

The publication of the New Hampshire Medical Society contains, in addition to the address of the President, Dr. D. T. Parker, of Farmington, the following papers, which make no claim to a high, scientific character, but are, without exception, carefully prepared, and will amply repay perusal:—

1. Medical Associations, by Dr. A. Smith, of Peterboro'.
2. Report on Practical Medicine, by Dr. G. B. Twitchell, of Keene.
3. The Relation of the Pharmacist and Physician, by Dr. C. A. Tufts, of Dover.
4. The Physiology of Sleep, by Dr. E. P. Hurd, of Newburyport, Mass.
5. Report on Smallpox, by Dr. G. W. Cook, of Hillsboro'.

The paper of Dr. Hurd, an abstract of which has already appeared in this JOURNAL, is by far the most elaborate of the collection, presenting in concise and attractive form the views of recent observers upon the intricate and mysterious phenomena of sleep.

Dr. Twitchell, in his able report, touches upon one of the prevailing topics of the times, the deterioration of American women, in consequence of the very general ignorance, or disregard, of the ordinary laws of physiology. He holds it to be the duty of physicians to endeavor to arrest this physical degeneration by communicating upon proper occasions to the public, and especially to *mothers*, those laws of hygiene upon the observance of which the preservation of sound health depends.

BOOKS AND PAMPHLETS RECEIVED.

The New Chemistry. By Josiah P. Cook, Jr., Erving Professor of Chemistry and Mineralogy in Harvard University. New York: D. Appleton & Co. 1874. Pp. 326. (For sale by A. Williams & Co.)

A Handbook of Medical and Surgical Reference. By John A. Wyeth, M.D. New York: William Wood & Co. 1873. Pp. 279.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S. Seventh American Edition, revised from the Author's latest notes, and edited, with additional notes and references, by John J. Reese, M.D. Philadelphia: Henry C. Lea. 1873. Pp. 879. (For sale by A. Williams & Co.)

Chemistry, Inorganic and Organic, with Experiments. By Charles London Bloxam. From the second and revised English Edition. Philadelphia: Henry C. Lea. 1873. Pp. 700. (For sale by A. Williams & Co.)

Annual Report of the Surgeon-General of the Commonwealth of Massachusetts for the year ending December 31, 1873. Boston: Wright & Potter. 1874. Pp. 27.

A Clinical History of the Medical and Surgical Diseases of Women. By Robert Barnes, M.D. Lond. Philadelphia: Henry C. Lea. 1874. Pp. 791. (For sale by A. Williams & Co.)

Report of the state of the New York Hospital and Bloomingdale Asylum for the year 1873. New York. 1874. Pp. 22.

The Nature of Gun-shot Wounds of the Abdomen and their Treatment. Based on a Review of the Case of the late James Fisk, Jr., in its Medico-legal Aspects. New York: William Wood & Co. Pp. 96.

The Physician's Dose and Symptom Book. By Joseph Wythes, A.M., M.D. Eleventh Edition, revised. Philadelphia: Lindsay & Blakiston. 1874. Pp. 236. (For sale by James Campbell.)

Lectures on the Clinical Uses of Electricity. Delivered in University College Hospital, by J. Russell Reynolds, M.D., F.R.S. Second Edition. Philadelphia: Lindsay & Blakiston. 1874. (For sale by James Campbell.)

Galvano-Therapeutics; a revised re-print of a report made to the Illinois State Medical Society, 1873. Philadelphia: Lindsay & Blakiston. 1873. Pp. 63. (For sale by James Campbell.)

Reports of the Trustees and Superintendent of the Butler Hospital for the Insane. Presented to the Corporation at their Annual Meeting, January 28, 1874. Pp. 29.

Boston Medical and Surgical Journal.

Boston: Thursday, March 5, 1874.

At the meeting of the Board of Aldermen on Monday last, the Committee on Licenses submitted a report on the petition of Jourdain & Co. to exhibit their "Gallery of Anatomy." In this report, the committee not only express their conviction that exhibitions of this character ought not to be licensed, but recommend that the Chief of Police be ordered to see that the law is not evaded by holding free exhibitions. The members of the committee have given this matter their personal attention, and, from the first, were unanimous in their opinion, which has since been strengthened by the remonstrances received from the Boston Society for Medical Observation, the Boston Society of Natural History, the Boston Society of Medical Sciences, the Suffolk District Medical Society, the Board of Government of the Boston Young Men's Christian Union, and also from the Young Men's Christian Association. Notwithstanding this very strong testimony against the propriety of permitting such an exhibition, the Board of Aldermen have seen fit to lay the report and orders upon the table. We cannot believe that any member of the Board can entertain favorable opinions of the character of this "Gallery," unless laboring under great misapprehension of the true facts of the case. We are happy to state that Mayor Cobb has expressed to us his unqualified disapprobation of all such exhibitions, and his determination to do everything in his power towards suppressing them. We trust that the doubting Aldermen, if any there be, will take the trouble to convince themselves of the justice of these remonstrances, and will allow no undue "pressure" to influence their opinion.

A year ago, the Medical Examiners of many of the Life Insurance Companies, having home or branch offices in Boston, united themselves into an organization, entitled The Association of Life Insurance Examiners for Boston and Vicinity. The importance of many questions which are constantly arising, concerned with the subject of Life Insurance, and the general interest which the community, as well as the profession, feel in the proper administration of this important system, renders such an organization as this well worthy of notice and support. The Association of Examiners invite the coöperation of *all* the appointed medical officers, in regular standing in the profession, in the companies whose home or branch offices are represented in Boston. The special objects contemplated embrace not only a full

understanding of the duties and responsibilities of Medical Examiners, and in a general way an assurance of mutual support and coöperation in the performance of those duties, but also the consideration of subjects important to the companies the members individually represent, and to whose interests they are pledged. The examination of applicants for insurance is a subject of the utmost importance; the due performance of his duties in making such examinations should call forth the highest ability and the most conscientious action on the part of the examiner; and upon such performance of duty by the corps of examiners depends the very life of the companies. It is the wish of the Association to subserve the best interests of the community, and, in this desire, they are determined to exercise the utmost vigilance in making *their* agency in the matter reliable and secure. Much has been written and perhaps more said concerning Life Insurance. All will admit it to be a system which has a beneficent end in securing comfort and support to those who might otherwise be left without the means of subsistence in the world. It is the aim of the examiners in this city, to protect the interests both of the companies and the policy holders, to secure the appointment of men, as medical officers, who stand honorably in the profession, of undoubted ability and unimpeachable integrity, and, in this manner, to merit the respect of the profession and of the community.

At the annual meeting, recently held, Dr. W. W. Morland was elected President, and Dr. F. H. Brown, Secretary, for the ensuing year.

At a meeting of the students' Boylston Medical Society of Harvard College, on Friday evening last, the announcement was made of the names of the successful competitors for the annual prizes offered for members of the society. The first prize was awarded to Mr. Charles H. Williams, for an essay "On the Action of Bile in promoting the Absorption of Fats;" and the second to Mr. G. M. Garland, for an essay "On the Action of Intestinal Juice during the Process of Digestion." Honorable mention was made by the prize committee of an essay by Mr. Edward Waldo Emerson "On the Thermometer in Medicine," and of one "On Milk Fever." The two prize essays were the result of careful work performed in the physiological laboratory of Prof. Bowditch, while the others gave the results of painstaking observations in hospital wards. The unusually high standard of all the essays, containing, as they did in each case, more or less original observation, and a thorough familiarity with the subjects of which they treated, reflects great credit upon the competing students, and is at the same time gratifying, as showing one of the advantages of the new system of medical education as now pursued at

Harvard. The opportunities and encouragement given to the student for an active participation not only in many of the prescribed studies of the course, but also for special work in other departments, is one of the features of this system which cannot fail to increase the zeal of all those who enjoy its benefits in the study both of scientific and practical medicine.

We have received, through the courtesy of Assistant Surgeon J. S. Billings, U. S. A., a copy of the alphabetical catalogue of the library belonging to the Surgeon General's office at Washington. The work is comprised in two very large volumes, of a thousand pages each, and includes only the names of works of known authors, whose titles are fully given. A supplemental volume, to contain anonymous works, reports, transactions, periodicals, and an index of subjects, is forthcoming. The library, of which these exhaustive catalogues give us information, takes a foremost rank in the medical book-collections of the world; it contains twenty-five thousand volumes and fifteen thousand single pamphlets—not an insignificant showing for the enterprising efforts of those who have been engaged in founding and fostering the project. It is a matter of sincere professional gratification, not to say national pride, that we can point to this magnificent library in close relationship with the famous Army Medical Museum, and it is fitting that the two collections should be side by side, within the same fire-proof walls.

Dr. Billings, the Librarian, has done the great work of the catalogue with a success for which he will be emulated; and has furnished in this extensive compilation a contribution which, as a book of reference, aside from its value in connection with the Army Library, will be greatly prized by the profession.

Pharmaceutical Jurisprudence.—French tribunals are less indulgent towards the "fatal accidents" of pharmaceutists than are those of this country. The *Progrès Medical* reports the case of a druggist who supplied, accidentally, acetate of baryta in lieu of sulphovinate of soda, the substitution proving fatal to the patient. The court gave damages to the extent of £800 to the widow and son of the deceased.—*British Medical Journal.*

Premature Rupture of the Membranes.—Dr. T. Chestnut gives an account (*American Practitioner*, viii., 48, 1873) of three cases of premature rupture of the membranes between the seventh and eighth months of gestation, and the consequent escape of the liquor amnii; in all of these, however, the delivery was postponed three, six and four weeks respectively, by confinement to bed and the administration of opium, whenever there was any attempt at uterine action. The

children were all born before the full term, and were puny, but with care and good nursing all lived. The editor, in a note, calls attention to the "false waters," which are discussed in Depaul's Clinical Lectures on Obstetrics. The fluid, in these cases, flows off as in those reported by Dr. Chestnut, but their source is traced to an oozing of serum from blood extravasated from the capillary vessels at some point where the ovum has become detached. The serum accumulates between the membranes and the uterine walls until, by further detachment of the membranes or placenta, the fluid arrives at the os and is suddenly discharged. This oozing may persist until the ovum again adheres to the uterine wall. If a patient observes complete repose, this flow is said to diminish and finally cease. The phenomenon may recur several times in a pregnancy. The liquid of the false waters is odorless, clearer and more transparent than the other, and presents all the characteristics of serum, whereas the amniotic fluid has a faint odor, often contains whitish particles of sebaceous matter, or is discolored green or yellow by the admixture of meconium, is expelled when the head of the fœtus, which acts as a valve, is raised, or it follows uterine contractions. Reference is also made to a case reported by Bailly (*Gazette Obstétrique*, March 20, 1873) and to another by Dr. Campbell. In the former, the membranes ruptured at the end of the eighth month, but delivery was delayed for thirteen days. In the latter case, pregnancy was prolonged seventeen days after the like mishap.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Saturday, February 21, 1874.)

Operations were performed in the following cases:—Parotid Tumor, Artificial Anus, Abscess of Frontal Sinus, Caries of Sternum, Tumor of Breast, Condylomata, Necrosis of Femur. During the week, Railroad Injury of Arm and Leg.

Parotid Tumor—in a man, thirty-one years old. Empirical attempt to extirpate, by caustic, one year since. Now, about the size of a hen's egg; skin cicatrized and adherent. The surface of the tumor was exposed by a crucial incision; the thin layer of parotid gland invariably covering similar growths was reflected with the integuments, and the tumor, friable and crumbly, turned from its capsule, which was afterwards dissected out, stripping readily, except where the caustic had provoked adhesions. The tumor was one of the variety known as "mixed cartilaginous."

Artificial Anus—in a man, thirty-eight years old, the result of a strangulated hernia of the small intestine, which occurred one year ago. Sixteen inches of the intestines sloughed and left a fistula surrounded by cicatrices, in the right groin, through which he has a constant liquid discharge, without odor. The usual discharges take place regularly from the anus. Six years ago, he was the subject of Wood's operation for the radical cure of hernia, which resulted unsuccessfully, the hernia again appearing in four months. Dr. Cabot dissected up the integument bordering on the old cicatrix, and freshened the surface of the latter, to the margin of the fistula, which he close by two silver-wire sutures. The fresh borders of the integument were then approximated over the closed fistula, and also secured in apposition by wire sutures.

Abscess of Frontal Sinus—of seven months' duration, in a middle-aged man; he had suffered from intense pain, without apparent cause, just above the root of the nose. The bone had become thinned by absorption, and the integuments were thickened and indurated. The nose was widened at its up-

per part, and there was some bulging of the frontal region; pressure revealed the presence of air, which the patient could force into the sinus by blowing his nose, and caused a discharge of pus from his nostrils. Through an incision between the eyebrows, the sinuses were exposed (their thin and crackling wall being easily cut through by the knife), the opening into the nostrils enlarged with a dilator, and some fragments of carious bone removed from the cavity.

Caries of Sternum—in a man, forty-four years old. Ten months ago, an abscess formed over the middle of the sternum, which resulted in a sinus that communicated with denuded and roughened bone. Dr. Cabot enlarged the sinus, and, with a conical rasp, removed the carious surface.

Tumor of Breast—the size of an English walnut, in a middle-aged woman, adherent to the skin, close to the nipple, with no axillary complication. Removed by two straight incisions, without extirpation of the gland. Apparently non-malignant.

Condylomata—in a man, excised by Dr. Cabot.

Necrosis of Femur—in a man, fifty-three of years age. He bruised the limb two years ago, by falling into a cellar, and stated positively that he had been able to walk about ever since. Six weeks after the accident, an abscess formed on the posterior aspect of the thigh, at its middle; this broke and left a sinus, which has been discharging since. The sinus was enlarged, and some fragments of dead bone removed; passing the finger up to the shaft of the femur, an irregularity was felt, which was thought must have been caused by a fracture.

Railroad Injury of Arm and Leg—in a male adult. There was a compound, comminuted fracture of the hand and arm, including the elbow-joint; also of the foot and ankle-joint. Amputation of the arm, in the lower third, by the circular method, and of the leg at the junction of the middle and upper thirds, by the flap method. H. H. A. Beach.

BOSTON CITY HOSPITAL.

On Friday last, February 27th, most of the operations were comparatively unimportant.

Dr. Cheever operated on a Fistula in Ano, laying open the tract with the knife and excising the indurated tissue about the fistulous aperture in the rectum.

Dr. Thorndike performed Circumcision in the case of an adult who had contracted a chancre under the prepuce. The foreskin had been slit up ten days before the present operation, to allow the venereal sore to heal; and now that this result was accomplished, the mass of cicatricial tissue left in the prepuce was excised, and the exposed edges of the wound were united by sutures.

Dr. Wadsworth performed Iridectomy and Tatooing of the Cornea. He also divided the tarsal ligament and removed a portion of the conjunctiva of the lid, to remedy inverted lashes.

Dr. Thorndike related such of the history of a case of Traumatic Femoral Aneurism as was subsequent to the operation reported in the Journal of February 5th. During the ten days following the operation, no unfavorable symptoms were manifested. Then, secondary hæmorrhage from the femoral artery occurred. Dr. Thorndike tied the vessel above the former point of ligation, securing it at the apex of Scarpa's triangle. There was no recurrence of the bleeding. The patient reacted well, and, during the next week, progressed toward recovery; he awoke one morning, however, to find himself blind. The pulse at this time was quite as it should be normally; there was no bleeding or paralysis. The pupils were contracted. Coma soon followed. On the second day of this condition, there were rigors, with increasing stupor, but without paralysis. During the next three days, the symptoms remained nearly constant, with a steady tendency to sinking. Death occurred on the fifth day after the first symptom—blindness—was noticed.

At the autopsy, there were found the purulent dépôts of pyæmia in the lungs, the mesentery, the kidneys and the spleen; there were none in the liver. There was no clot in the femoral artery. In the brain, there was an abscess in the right crus cerebri and one also in the cerebellum. Pus and lymph appeared between the cerebellum and the medulla.

Dr. Thorndike remarked, in connection with this case, that stupor, similar to narcotism, with *contracted* pupils, had been noted by some authorities as associated with abscess in the cerebellum.

On Tuesday, February 24th, Dr. Cheever operated on a complete Fistula in Ano. He passed four strands of an elastic cord through the sinus and, having drawn it tightly, tied it so as to include the isthmus of the skin and other tissue of the wall of the fistula; the cord was then left to cut its way through. The patient was phthisical, and the fistula proved a source of constant annoyance and suffering to him. To diminish the pain, and in the hope that by the method adopted the wound would heal quickly, the fistula was treated in the manner described, rather than by the knife or by the silk or wire ligature.

F. W. DRAPER.

Correspondence.

LETTER FROM PHILADELPHIA.

(From our regular correspondent.)

PHILADELPHIA, February 20, 1874.

DURING the present winter, the Medical Department of the "University of Pennsylvania" holds its sessions in the building formerly occupied by the "University of *Philadelphia*," famous, and infamous, for selling diplomas both to natives and foreigners, known and unknown. While in existence, this worthy institution frequently entrapped Southern and Western students who came to this city to matriculate at the "University of Pennsylvania." Similarity in the titles of the two institutions, and ignorance on their part, misled the few unfortunate flies who walked into the parlor of this disreputable den.

The old buildings of the "University of Pennsylvania" have been razed to the ground prior to the erection of the new post office. Meanwhile, the Medical Department of the University experiences the questionable enjoyment of occupying the apartments of its old enemy.

The new University buildings are rapidly approaching completion, over the river, in West Philadelphia. The Academy of Arts is already occupied—a structure sightly and elegant, albeit of a somewhat complicated architecture, which suggests the French gothic. For some occult reason, the natives speak of it as "Collegiate" gothic. Two additional buildings will complete the plan of the architect. One of these will be used by the Medical Department, and will include such laboratories as are necessary in modern medical research. The third will be the University hospital building. The three structures are to be similar in architectural design.

This happy and flourishing condition of the University is the result of the energy of the younger men of the faculty, notably of Dr. Wm. Pepper, who has been perfectly untiring in his efforts in this direction, and has raised the larger portion of the funds (about $400,000) accumulated by private subscription. In addition to this amount, the University is richer by $100,000, the gift of the State legislature.

One depressing feature in the new order of things has been the opposition of some of the older members of the faculty, who thought that what had been well enough ought to be let alone, and one of whom resigned, indignantly remarking, "If the old ways and means are not good enough, I must withdraw"! It cannot be possible that the medical faculty will continue the present system of teaching, so confusing to the student, in their new quarters. Concerning this question, I am not informed, further than by the im-

pression that there are private monied interests which would make it difficult to change the existing curriculum. It remains to be seen whether Prof. Stillé will lay down his arms and counsel his brethren of the faculty to adopt the excellent, indispensable system now in force in the Harvard Medical School. Its bitterest opponent can no longer refuse to see and acknowledge either its feasibility or its success.

Jefferson College, younger but not less successful than her rival, lacks only the means to become also enabled to establish herself in new and convenient buildings. The State legislature voted the same appropriation to both institutions, but with the condition, already fulfilled by the "University," that each college should first raise an equal amount to that of the appropriation. It is not surprising that the wealthy men of the city should be more ready to give to the "University" than to Jefferson College, because the former is essentially a local favorite, the result of her antecedents. In the number of yearly graduates, however, Jefferson College has frequently surpassed the "University." The faculty of the Jefferson Medical College is a vigorous body of teachers, and the institution is a favorite of Western and Southern men. Medical students of Philadelphia origin flock to the University. I have heard it said, how justly I will not attempt to judge, that "The best dressed men attend the University; the hardest working men attend the Jefferson College."

The contest for the chair of anatomy of Jefferson College will re-open next month. There are several contestants, but the issue really lies between Drs. Wm. W. Keen, John H. Brinton and Wm. H. Pancoast, son of the present occupant of the chair. The competition will be warm, but it is to be sincerely hoped that pure merit will win the chair so soon to be vacated by the distinguished and venerable Prof. Joseph Pancoast. His resignation was accepted last summer, with the condition that he would lecture until spring. The prospectus of the College for 1874, just issued, numbers Prof. Pancoast among the acting faculty. Since he is already an Emeritus Professor, the reason for this announcement is obscure.

You probably know that the late Prof. Mütter, in addition to his private museum, left to the College of Physicians of Philadelphia a fund for the purchase of such other anatomical preparations as might be deemed of value. The museum committee have been so fortunate as to secure, at an expense of $3,000, a large portion of Hyrtl's famous and beautiful anatomical collection, which has been exhibited, not only at the Vienna Exposition, but also similarly at Paris and London. The collection comprises seventy skulls, gathered from the four corners of the earth, each skull being accompanied by a biography of its original possessor. One can hardly conceive of a more valuable and interesting group of crania. There are also twenty placentæ, normal and abnormal, of remarkable value, selected and prepared by Hyrtl only because of their extreme rarity, and which are of equal interest to anatomist and obstetrician. Several of these placentæ were sent to Hyrtl from various quarters of the globe—South America, South Sea Islands, New Zealand, Sumatra, &c.

The collection also contains Hyrtl's superb preparations of the organs of hearing, upon which he spent fourteen years. With one specimen is connected an amusing story, which dear old Hyrtl, true to the German manner, relates in his catalogue. The preparation is nothing less rare than a perfect specimen of the petrous portion of the temporal bone of an embryo hippopotamus, and here is the story, which is better told in the original:—"Since the days of the Roman emperors, not a living hippopotamus had been brought into Europe. The anatomy of the internal organs of the animal, therefore, remained unknown. In 1830, Mons. d'Abbadie was sent by France as ambassador to the King of Schoa. To his instructions, the French Academy annexed the request that he would forward to Paris the internal organs of a young hippopotamus. With tact, the minister undertook the undiplomatic commission. The king was severely ill with articular rheumatism. He questioned the minister as to whether he could help him (in the Orient every Frenchman passes for a doctor). Mons. d'Abbadie resolutely replied,

'Certainly.' 'Produce the remedy! I will give my crown if I become well again.' 'Entirely unnecessary. The remedy is to be found in your own kingdom. It is the fat of a hippopotamus.' 'Bring a hippopotamus'! 'Gently, that is not so easy. It must be the fat of a pregnant female.' Huntsmen were sent into the savannas, and one of them actually brought a pregnant female hippopotamus. With the fat of the same d'Abbadie anointed the limbs of the king, who recovered from his pains. But d'Abbadie pickled (eingepökelt) the fœtus and sent it to the Jardin des Plantes, where Blainville allowed me to dissect out the petrous portion of the temporal bone and replace it with plaster. Thus came into my collection the labyrinth of a fœtus of a river-horse." The remainder of the purchase consists of the celebrated corrosion preparations, which cost Hyrtl so much labor and skill.

Hyrtl has heretofore received handsome offers for his collection, from private individuals. His invariable reply has been, "I would rather *give* my collection to a museum than sell it to a private individual."

An attempt has been made to purchase the beautiful dissections of the larynx, which form a portion of the anatomical museum in Tübingen. They are the work of Prof. Luschka, of that town. The plates in Luschka's fine monograph on the larynx are *fac similes* of these dissections, which are most exquisite. In reply to the letter containing the offer of purchase, Luschka wrote that it was not permitted to sell from the museum any preparations whatever.

There have been of late, in the Philadelphia schools and hospitals, several surgical operations of marked interest. Three of them were rare. Dr. F. F. Maury performed resection of the brachial plexus of nerves. I hope to give you full details of the operation, of its results at any rate, in a future letter. Dr. Thomas G. Morton lately tied the femoral artery in Scarpa's triangle, for elephantiasis Arabum. The patient was a young negro. The hypertrophy (of the right leg) had been of slow development. The greatest measurement, just above the malleoli, was twenty-four and one half inches. I noticed that the femoral artery and venæ comites were of remarkably small calibre. After the ligation, the patient's heart labored somewhat tumultuously. The operation promises a good result. Already, the hypertrophied limb has become reduced to one half its former size. This is the twenty-fourth ligation of the femoral artery for this disease.

Prof. Gross operated the other day upon a case which is unique. A negro, of middle age, presented himself with a swelling on the lower portion of the leg, nearly in the median line. The tumor pulsated; was small in size; caused little or no pain. Two surgeons of note were present. One pronounced the swelling to be an enlarged bursa resting upon the anterior tibial artery. The other gentleman refused to commit himself by an opinion. Prof. Gross thought the excrescence presented the characteristics of an aneurism, and this it proved to be. It was situated on the left leg, between the external malleolus and the median line; was found under the flexor tendors and connected with the inferior portion of the anterior tibial artery, which was ligated. This is the only case on record of an aneurism in this situation.

Dr. Weir Mitchell has received the rare compliment of having his book on "Injuries of the Nerves" translated into French within sixteen months after its publication here. Dr. Mitchell is rapidly increasing his reputation in the treatment of nervous diseases, especially the hydra-headed hysteria, in the management of which his procedure is peculiar as well as successful. He is also making practical his views concerning the proper manner of treating locomotor ataxia. In the orthopædic hospital, Dr. Mitchell has several rooms devoted to the treatment of nervous complaints. In a future letter, I propose to give you some details of his method in diagnosis and treatment.

Dr. Keen is experimenting upon the antiseptic powers of chloral hydrate. A solution of two grains of chloral to the ounce of water effectually arrests putrefaction, but a stronger solution would be preferable. In a case of psoas abscess and hip disease, with profuse discharge of ill-smelling pus, Dr. Keen kept the ward perfectly free from odor and the diseased parts in a sweet con-

dition by using water dressings medicated with chloral. He was unsuccessful in using a solution of the salt as an injection in gonorrhœa. It was found to be too irritating.

Dr. Clarke's book (Sex in Education) is being read here as elsewhere. The general impression seems to be that the book will prove itself abundantly useful, that it will do good, but that it should be filtered through mothers to daughters.

The autopsy of the Siamese twins, now in progress, interests more or less completely the entire medical public of Philadelphia. The majority feel an earnest desire to learn the results of the necropsy. Many, however, say that the disclosures will be of no consequence, and the whole matter is being overdone. Only the members of the College of Physicians will enjoy the privilege of listening to the report of the committee who have the bodies in charge. But since any anatomical demonstration becomes available only to those nearest the subject, the details of the autopsy, when published, will be fully as interesting to those who are shut out from the College as to the privileged members of that body. UNGENANNT.

THE PNEUMATIC ASPIRATOR.

FITCHBURG, January 29, 1874.

MESSRS. EDITORS,—Among the appliances of surgery brought to the aid of our art in recent times, the pneumatic aspirator may well take a prominent stand. Every general practitioner, even though he have little inclination or opportunity to practise surgery, is occasionally placed in circumstances where the aspirator is invaluable. To illustrate, let me cite the following case:—

A short time since, I received one of Dieulafoy's aspirators, manufactured by Codman & Shurtleff. I hardly had it in my possession when I was called to catheterize an old man of 83 years, long under my care for prostatic disease. Having performed this service for him many scores of times before, I proceeded without delay to relieve his sufferings from an over-distended bladder, but I found it impossible to introduce any kind of catheter into the bladder. I ordered an opiate, general warmth, and an enema of warm water. After an interval of three hours, I made a second attempt and again failed. I now learned that the enema could not be given. A digital examination of the rectum revealed an enlargement of the prostate to the size of a small orange, apparently occupying the whole space from the pubes to the sacrum. This condition had prevented the successful use of the syringe. No fluctuation could be felt, and the whole mass was hard and tender. The fundus of the bladder could be felt within two inches of the umbilicus. The tongue was brown and dry. The pulse was 120 and intermitting.

After a third careful and patient, but still unsuccessful, effort to catheterize, I proceeded, without further delay, to use the aspirator. Having used a common quart bottle for an air-chamber, with my largest needle in position, I pushed it through the tissues in the linea alba, immediately above the pubes, directing the point downward and backward into the bladder, when I had the satisfaction of seeing the urine flow in a steady stream. When the bottle was about half full, and afterward, a few strokes of the piston were needed, until the whole amount was removed, in all about thirty-two ounces.

The old man raised his hands in ectasy, declared the operation less painful than that by the catheter, and that he never felt better in his life. During the following day, the urine was voided voluntarily, in small quantities, but soon ceased, and the operation was again resorted to, with the same favorable results. During a period of ten days, the aspirator was used five times, when nature resumed her work, and I dismissed my patient, in as comfortable condition as for the past two years.

In the aspirator, we have a valuable aid in the treatment of certain attacks of the urethra and prostate, by giving perfect rest and freedom from all irritation resulting from instrumental interference.

GEORGE JEWETT, M.D.

Medical Miscellany.

Dr. Wilson Fox has been appointed Physician in Ordinary to their Royal Highnesses, the Duke and Duchess of Edinburgh, the much-talked of bridal pair.

Horseradish for the Stone.—"Met Mr. Parziter, and he would needs have me drink a cup of horseradish ale, which he and a friend of his, troubled with the stone, have been drinking of."—*Pepys's Diary*, vol. ii. p. 149.

Florida State Medical Society.—A preliminary meeting was convened at Jacksonville, on the 14th of January, for the purpose of organizing a State Medical Society. The meeting was attended by a large number of medical men, and a list of officers was chosen for the ensuing year.

Hypodermic Syringe and Abscesses.—Dr. Squibb calls attention to the liability to the production of abscess by the use of a hypodermic syringe which has been used in septic cases. Abscesses, almost indefinite in number, may be produced in this manner, unless the syringe is properly cleansed by submitting the needle to the flame of a spirit-lamp.

The Grouse Disease.—At a recent meeting of the Pathological Society of London, Dr. Cobbold exhibited a specimen of strongylus, which, he affirmed, was the cause of grouse disease. The parasites inhabited chiefly the cæcum of the bird, and, when they abound, the grouse is reduced to a mere skeleton, being almost unable to fly.—*British Medical Journal.*

Deaths among Children from Overlying.—During the first three weeks of the present year, the startling number of *seven* deaths occurred in Glasgow among young children from overlying by their parents. In every one of these cases, the intemperance of the parents had apparently been the cause of the death of the children.

Transfusion.—An English practitioner, Dr. Highmore, suggests, in view of the necessity of prompt action in post-partum hæmorrhage and of the scarcity of suitable subjects from whom to take the required supply of blood, that the hæmorrhagic blood of the woman might be made available, by defibrinating and warming it before its injection.—*Lancet.*

Arsenical Green appears, according to the *Lancet*, to be a favorite color with the people of Greenock. Most of the houses in the town are papered or painted green, the coloring matter being so loosely laid on that very slight rubbing will remove a powder consisting mainly of arsenic. Last Christmas, a cake, in which was imbedded a green card inscribed "For the bairnies," was seized at a baker's. The card was coated with sugar, and was found, on analysis, to contain 7·04 grains of arsenious acid.

Bandaging in Acute Rheumatism.—Dr. Oehme, in the *Archiv für Heilkunde*, recommends immovable bandages in acute rheumatism, thus securing perfect rest. He relates his experience of this means of treatment in forty-five cases. After comparison with various means of treatment employed in forty-five other similar cases, Dr. Oehme stated the following results in favor of the bandage system:—1. The pain is considerably lessened. 2. The duration of the fever is much shortened. 3. The duration of the whole attack is considerably abbreviated.—*Medical and Surgical Reporter.*

Dislocation of both Ends of the Clavicle.—A coachman, aged 32, was endeavoring to open a gate to allow a cart to pass, but was struck by the shaft upon the back of the right shoulder, whilst his left was fixed against the gate-post, by which movement the sternal end of the right clavicle was dislocated forwards, and the acromial carried backwards and upwards. The accident is of extreme rarity, there being, perhaps, not more than four or five cases on record.—*British Medical Journal*, Jan. 24, 1874.

At a special meeting of the Franklin County (Vt.) Medical Society, the following resolutions were unanimously adopted:—

Resolved, That this Society has heard with profound regret of the death of Dr. R. C. M. Woodward, one of its old and respected members.

Resolved, That we cherish his memory as that of an earnest and diligent worker in the promotion of medical science and in the advancement of the healing art.

Resolved, That our long association with him has deepened our conviction of the excellence of his character as a faithful and conscientious physician, as a true and warm-hearted friend, and as a pure and upright man in all the relations of life.

Resolved, That we sympathize with his family in their bereavement, and, as a mark of respect, will attend his funeral in a body.

Resolved, That a copy of these resolutions be forwarded by the Secretary to the family of the deceased, and that they be published in the Boston Medical and Surgical Journal and in the St. Albans daily papers.

Resolved, That a copy of these resolutions be transmitted to the secretary of the Vermont Medical Society and the St. Albans Village Medical Association, of which Societies he was also a member.

Geo. Dunsmore, M.D., *Secretary*. S. S. Clark, M.D., *President*.

Very High Temperature in Rheumatism.—Dr. R. Macnab, of Bury St. Edmunds, reports a case of extraordinary high temperature in this disease. "From the first day of the attack the temperature never fell below 101·8°, and did not exceed 103·4° till the ninth day of the fever, when the perspiration suddenly ceased. The following is the record of temperature during this last day:—

10. A.M.	104·7°
4, P.M.	105·4°
5.30, P.M.	107·6°
6.30, "	108·8°
7.33, "	111·4°

The thermometers used were made and certified as correct by Casella."

NOTES AND QUERIES.

"Similia Similibus Curantur."—The latest homœopathic remedy for diabetes mellitus is said to be a decoction of the Lathyrus odoratus, or *sweet-pea*.

Messrs. Editors,—I have been a good deal annoyed by the washing or rubbing out of the blacking in the divisions of my thermometer; my Casella does not stand in this respect. Rubbing the scale with a black-lead pencil will restore the marks perfectly, but they are not permanent. I have tried covering them with "photographic varnish" (collodion, I believe), but this soon becomes opaque. Can you tell me of anything better than the black-lead pencil? W.

Mortality in Massachusetts.—*Deaths in thirteen Cities and Towns for the week ending February* 21, 1874.

Boston, 143; Worcester, 13; Lowell, 15; Milford, 3; Chelsea, 8; Cambridge, 14; Salem, 13; Lawrence, 11; Springfield, 9; Lynn, 12; Newburyport, 6; Fall River, 19; Holyoke, 4. Total, 270.

Prevalent Diseases.—Consumption, 49; pneumonia, 32; scarlet fever, 21.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Feb. 28th, 132. Males, 62; females, 70. Accident, 3; apoplexy, 6; inflammation of the bowels, 1; disease of the bladder, 1; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 4; cancer, 2; cerebro-spinal meningitis, 1; consumption, 22; convulsions, 4; debility, 5; diarrhœa, 1; dropsy of the brain, 3; dysentery, 1; erysipelas, 2; scarlet fever, 5; typhoid fever, 5; remittent fever, 2; gastritis, 2; disease of the heart, 6; indigestion, 1; intemperance, 1; disease of the kidneys, 3; inflammation of the lungs, 19; marasmus, 1; malnutrition, 1; noma, 1; old age, 5; premature birth, 5; peritonitis, 3; puerperal disease, 5; pyæmia, 1; rheumatism, 1; "stomach disease," 1; tumor, 1; whooping cough, 1.

Under 5 years of age, 49; between 5 and 20 years, 13; between 20 and 40 years, 28; between 40 and 60 years, 16; over 60 years, 26. Born in the United States, 97; Ireland 24; other places, 11.

THE

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Original Communications.

A CASE OF MALIGNANT ŒDEMA.

By T. B. CURTIS, M.D., Boston.

A PAPER, published a few months ago by Dr. Mauvezin,* offers some new facts and considerations bearing upon the subject of *charbon* (carbuncular or anthracoid disease).† The author seeks to establish the existence in man of a particular form of this virulent affection, which is not very uncommon among herbivorous animals, and which is known to veterinary surgeons by the name of "carbuncular fever, with tumors" *(fièvre charbonneuse avec tumeurs)*; to this form of charbon, when seen in man, he gives the name of "malignant carbuncle" *(charbon malin)*. It differs from the form made known by Bourgeois, under the name of "malignant œdema," only in the order of development of the local and general symptoms; the anteriority of the former being characteristic of malignant œdema, whereas, in "malignant carbuncle," the general symptoms precede or accompany the apparition of the superficial lesions. The amount of clinical evidence to be adduced in any attempt to describe and classify the rarer forms of charbon appears very meagre and unsatisfactory.

Dr. Mauvezin's paper is based on three cases only, briefly reported, and unaccompanied by any record of *post-mortem* examination. One of his cases, indeed, is borrowed from Dr. Raimbert,‡ who considers it a case of malignant œdema. This latter disease is itself of rare occurrence; it is most often met with on the eyelids, as described, first, by Bourgeois,§ and by him limited to that locality; but Dr. Raimbert asserts that the disease may occupy other parts of the body, the trunk and limbs. Reported cases are, however, as Dr. Raimbert himself confesses, "rare and very incomplete." In view of this dearth of observations, I venture to offer for publication a case of which the notes

* Archives Générales de Médecine, August, 1873; translated in the American Journal of Syphilography, January, 1873.

† It is to be regretted that we possess in English no satisfactory equivalent for the French terms "charbon" and "charbonneux." The English "carbuncle" and "anthrax," and their adjectives "carbuncular" and "anthracoid," are objectionable, as their significance is equivocal, and leads to confusion between furuncular affections (furunculus and carbuncle) and malignant pustule; not only the terms, but the widely different diseases themselves, have been thus confounded, especially when furuncular disease of the face (often called "facial carbuncle") has taken on a so-called "malignant" course, through extension of facial phlebitis to intra-cranial veins and sinuses. (For examples of this confusion, see Boston Medical and Surgical Journal, vol. xlvii. p. 75.) The French terms offer no such ambiguity; *charbon* is the toxhæmic disease met with in animals and in man, and transmissible by inoculation; *anthrax* is what we call carbuncle, a spontaneous, local affection, sometimes proving fatal through debilitation, as in diabetes, or through pyæmia, but possessing no *specific* virulence or "malignancy."

‡ Traité des Maladies Charbonneuses. Paris. 1859.

§ Traité de la Pustule Maligne et de l'Œdéme Malin. Paris. 1861.

were taken by myself, when interne in the service of Dr. Voillemier, at the Hôtel Dieu, of Paris; the observation is, no doubt, incomplete in some important particulars (microscopic examination of the blood before death, inoculation upon sheep, &c.), but I think that it, nevertheless, contains some data which may make it a useful addition to the small stock of reported cases, for those who, at some future day, may undertake to establish the nosography of charbon, of which, with the exception of malignant pustule, so little is known positively. Without further apology for the deficiencies of my report, I subjoin a literal translation of the original notes.

Case.—A. C , aged 24, a butcher, living in Paris, Boulevard Montparnasse, entered the Hôtel Dieu (bed 21, Salle St. Côme) on the evening of July 25, 1869, on account of a slightly painful swelling of the right axilla, accompanying a small and superficial wound, situated on the forearm. With regard to this wound, the patient, who is quite intelligent, relates that it first attracted his notice ten or twelve days ago, but he thinks that it must then have already existed several days; he does not know how, when or where it was inflicted, but he "thinks it must be a sting," received while walking in the country near Paris (?). For two months and a half, he had ceased his occupation as a butcher. He offers no morbid antecedents, but says he is robust and healthy.

The wound, when first observed, appeared quite insignificant; but, about five days ago, the patient noticed, on the thoracic wall of the axilla, what he calls "a small gland," which was hard, and a little painful. This lump increased in size; then, the neighboring parts becoming swelled, it could no longer be felt. He denies having been feverish, but on the morning of the 23d of July (three days ago), having got wet through by the rain, he got into bed with his clothes on, and had a shivering fit, which lasted several hours.

The next day, the 24th, he got up, and applied for admission at the Hôtel Dieu, but was not received, as he came after the out-patients' hour, and his case showed no urgent symptoms. He did not feel very ill on that day, ate as usual, and went to bed at ten o'clock, feeling somewhat fatigued.

On the 25th, he applied at the Bureau Central for a bed, and was sent to the Hôtel Dieu. In the evening, he was seen by one of my fellow house-surgeons, who reports having observed a trifling-looking wound on the middle of the front aspect of the right forearm; this wound then presented a smooth, rosy, granulating surface, slightly raised, and about as large as a peach stone in extent. The thoracic wall on the same side presented an extensive, œdematous tumefaction; no lump was perceptible, nor could fluctuation be perceived; the region was hot, red, and somewhat painful, all the local appearances being those of acute adenitis; the pulse was a little frequent, but strong; the extremities were somewhat cold. During the afternoon, the patient complained of great thirst; he had no appetite, and vomited his beverage several times; he had one normal motion of the bowels in the night. No cough, or dyspnœa.

On the ensuing morning (the 26th), at eight o'clock, I see the patient for the first time, when making the round of visits with Dr. Voillemier, in whose ward the patient was placed. The sister says that he has been very restless all night, throwing off his bed-clothes,

and complaining of heat and thirst; he was not at all delirious, and his mental faculties appeared unimpaired; he does not complain of being in any pain, but he is drowsy, and wants to be let alone. We are struck by the condition of extreme algidity which he presents, his general appearance being that of a cholera patient in the most marked algid stage; his tongue is moist, but cold and purple; except the right axillary region, which is relatively warm, the surface of the body is very cold and moist; the skin is livid, mottled and marbled with purple streaks and spots; the extremities, as well as the nose and ears, are purplish and very cold. The wound on the forearm is of a bluish tint, instead of being reddish, as yesterday; pressure on the skin leaves a white spot, which disappears very slowly. The abdomen is somewhat swollen and tense; the right upper arm is tumefied on its inner aspect; on the right side of the body, the tumefaction extends from the axilla and chest as far as the crest of the ilium. The skin covering the tumefied region is apparently in a normal condition, presenting no sign of vesicles or gangrenous patches. The pulse is now imperceptible. The urine is scanty and high colored. The patient is in a torpid state, but is easily roused, and gives quite willingly, and in a very clear way, all the information reproduced above. He suffers little or no pain, but feels fatigued, and wants to sleep; he complains, also, of thirst, and of a feeling of heat, which leads him continually to throw off his bed-clothes.

By order of Dr. Voillemier, a hot vapor-bath is immediately administered, under blankets, and hot drinks with rum are directed. The warmth of the bath is at first complained of, but after half an hour, the patient says he feels better; he, nevertheless, is sinking very rapidly; his respiration becomes accelerated, with a groan at each expiration, but without any râles being heard on auscultation; the pulse and beating of the heart are imperceptible; the pupils are enormously dilated. At 11 o'clock, he ceases to answer when spoken to; at 11.30, he expires. Immediately after death, the temperature, taken in the rectum, is 98.2°; twenty minutes later, it is 98°, and continues to fall.

Post-mortem examination made on the 28th, 46 hours after death. The body is much swollen, especially the thorax, the upper extremities and the face, the latter being quite disfigured. From the nose and mouth, black blood, with bubbles, is ceaselessly pouring. The skin of the upper half of the body has become quite black, and is covered with vesicles and bullæ, which have appeared since death. The soft parts, when incised, pour forth the same fluid, black blood with bubbles. The peritoneal cavity contains much gas. The lungs are healthy, with the exception of a certain degree of posterior hypostatic congestion, and a black or purplish color, which is presented by all the viscera. The heart is soft and flabby; the endocardium is stained black; no clots are discoverable. The blood is everywhere fluid and syrupy, of a dark purple color, almost black. The liver is congested and soft; the spleen is voluminous and soft, resembling a bag full of black putrilage. The kidneys appear unaltered to the naked eye. No trace of phlebitis in the wounded arm. In the axilla, in the depths of the œdematous cellular tissue, there is a mass as big as the fist, composed of enlarged, lymphatic glands, many of which are as large as a walnut; the glands are not indurated; they are purplish, on section,

and of a fleshy consistency. No trace of pus anywhere. The body, when opened, exhales a peculiar, indescribable smell, quite different from that which ordinarily results from *post-mortem* decomposition.

Remarks.—If called upon to name the particular form of charbon, of which the foregoing case seems to me to be an example, I should call it a case of *malignant œdema*, so closely do all its features agree with the description of that affection given by Raimbert;* indeed, the resemblance of this case with that which is quoted from Raimbert by Mauvezin as an instance of what the latter proposes to call "malignant carbuncle" is quite striking, the only difference being that, in my case, the local symptoms appear to have slightly preceded the outbreak of general toxic phenomena. But I will not presume to attempt any discussion of the nosography of carbuncular disease, especially where such nice distinctions are to be drawn as those which separate "malignant œdema" and "malignant carbuncle." My only object now is to add to the existing evidence a case which seems to corroborate the exactness of Raimbert's description of malignant œdema, which description was based, by the author's own avowal, on a very small number of imperfectly reported cases. Raimbert describes the disease as follows: "When met with on the body, carbuncular œdema generally occupies the upper and lateral parts of the thorax. It produces but slight local uneasiness or discomfort, and assumes the appearance of a soft, doughy, tremulous swelling, without any discoloration of the skin. The tumefaction is diffuse, and rapidly attains to very considerable proportions, especially when situated on the mammary region. By the second or third day after the appearance of the œdema, the general symptoms come on; they are the same as those already described (i. e., in connection with malignant pustule), only the patient generally succumbs much more rapidly than in cases of malignant pustule; the consequence is that the local symptoms do not have time to reach their full development. Sometimes, however, before death supervenes, the tumefied region, assuming a sombre, red hue, becomes the seat of more or less numerous phlyctænæ, or else it becomes of a livid color, showing the existence or the imminence of mortification of its tissues. Carbuncular disease, when situated on the limbs, has the same characteristic features, only the further it is removed from the thorax and abdomen, the slower is the development of the toxic symptoms, so that the appearance of the phlyctænæ is likely to be more common, diagnosis more easy, and treatment more effective.†"

The general symptoms, according to Raimbert, are those of the toxic period of malignant pustule, namely: at the outset, with or without rigor, some feverish symptoms, with vomiting and constipation, soon followed by a feeling of prostration; the patient becomes somnolent, and is at the same time troubled with inability to sleep; the abdomen is tympanitic; the pulse becomes feeble; the surface of the body, covered with a cold sweat, grows quite cold, and cyanotic in hue, as in the algid stage of cholera. Sometimes, the patient is tormented by a feeling of burning internal heat, with thirst; he is restless, throws off his bed-clothes, and calls for drink; the urine is scanty,

* Nouveau Dictionaire de Médecine et de Chirurgie pratiques. Paris. 1867. Vol. vii. p. 180.

† Loc. cit p. 181.

or suppressed; the pulse grows weak and ceases to be felt. With all these phenomena of general prostration, the mental faculties are almost always unimpaired. Death ensues very rapidly.*

The *post-mortem* appearances are, mainly, the following: very speedy putrefaction, with development of gas in the peritoneum, intestines and bloodvessels. The blood is thick, fluid and black, and rapidly putrefies; in some cases, when examined during life, bacteria have been found in it; their morbific significance is, however, still equivocal. The spleen, always enlarged and much softened, is of a purplish or black color. The liver, kidneys, and, in fact, all the viscera are considerably congested, and of a dark color.†

Clinical Lecture.

ON THE EXCISION OF JOINTS.

Delivered at the Boston City Hospital.

By David W. Cheever, M.D.

Gentlemen,—The wards contain, just now, a very interesting series of cases of joint disease, and the child on whom I am about to operate this morning, you have seen for the past month undergoing the treatment by rest and extension, for hip disease. At first apparently benefited, he has latterly grown thin, irritable, vigilant and febrile. A week ago, fluctuation was detected near the trochanter, and pus was evacuated. The case, then, may be said to be ripe for excision. During this winter, one case of double hip disease in a little girl has terminated in death. Another, an adult, after ten years of incessant suppuration, and being riddled with sinuses all about the pelvis, into the rectum, above Poupart's ligament in the groin, and even on the opposite flank, and up over the false ribs, has finally succumbed beneath his sufferings. A third, an adult, after a spontaneous cure of hip disease in childhood, with dislocation and anchylosis, enjoyed a period of quiescence from disease for twenty-four years, when a fall lighted up again the dormant tendencies, new abscesses formed, and, after being bedridden for eighteen months, she has just undergone excision of the diseased bones, as a relief from suffering.

By the excision of joints, we mean the cutting out of diseased or broken joint-surfaces, trusting to the bone-reproducing power of nature to form a false joint, or, in the knee, a bony anchylosis. Although a modern operation, nature has long since shown us the lesson, in the false joints she forms in an ununited fracture or in an unreduced dislocation.

To Park, Moreau, White, Stromeyer, Esmarch, Larrey, and other surgeons, we owe the practical boldness to make the attempt of excision; but to Ollièr, of Lyons, Sédillot, of Strasburg, and Langenbeck, of Berlin, the patient experiments and clinical researches which have taught us why and how to expect success—especially to M. Ollièr, whose life-long researches on the regeneration of bone and the functions of the periosteum, in experiments on the lower animals, have demonstrated the laws which govern our results.

* Loc. cit. p. 157.
† Loc. cit. pp. 175 to 179.

It is true that we cannot reason strictly and directly from the lower animals to man. The lamb or the chicken repairs a fracture with the leg dangling. Their recuperative power is vastly greater than ours; yet, if not strictly comparable, their modes of bone-growth are analogous to that of man, and may point the way to human experiment and success.

In the growth and repair of bones, the periosteum, the Haversian canals and the medullary connective tissue (endosteum) all furnish the plastic elements to form osseous structure. So, too, there are three vascular systems directly concerned: that of the periosteum, that of the medullary membrane, and the nutrient artery. In diseased joints, we find the vessels enlarged and increased, and the periosteum thickened and very vascular, which is, probably, one reason why excisions for disease are better recovered from than those for injuries, where the circulation is only adapted to the wants of a healthy part, instead of the increased demands of an inflamed one.

The periosteum is far, then, from being the only source of bone-repair, though it is the most important one. If we can save the periosteum, we hope for a more perfect reproduction of bone than if it be destroyed. Hence, the importance of the most modern operations of Ollièr and Sédillot, called "sub-periosteal resections." In these, we aim to scrape the bones, rather than to cut around them; to push back and preserve every portion of the periosteum, and to excise the diseased or broken joint, with the bones cleanly denuded of all soft tissue. These sub-periosteal operations give admirable results.

Ollièr's experiments have demonstrated, to use his own words, that:

"If bone is removed and its periosteum left, bone will grow again.

"If the processes and articular ends of bones are removed, and the periosteum is preserved, the processes will be reproduced.

"If bone is transplanted with its periosteum, the bone will live and grow (osteo-plastic operation).

"But if cartilage is transplanted, it will degenerate, or die."

The last statement explains why, in a traumatic excision, we usually get a better result by cutting out all the articular surfaces, than by leaving any portion of them; for the feeble vitality of cartilage, nourished by imbibition, usually fails to survive the irritation of an opening in the joint, and it degenerates, suppurates and peels from the bones.

There is one very important restriction to the growth of excised bones. Since the growth of the long bones takes place between the epiphysis, or articular end, and the diaphysis or shaft, it follows that if a section of a growing bone is made above the junction of the epiphysis and diaphysis, growth in length will cease. Thus it occurs that we sometimes see an excision of the knee in childhood followed by arrest of growth in the femur, and the child, when grown up, having the excised limb from three to seven inches shorter than its fellow, and practically useless. But we must remember that the joint is diseased so high up, in some cases, that we must saw above the epiphyseal junction. Moreover, in certain joints, as the knee, if we follow the established rule to remove all the articular surfaces in excising, we inevitably go above the epiphysis, since the line of junction runs through the upper third of the articular surface of the condyles of the femur. If we go below this line and leave articular cartilage, we run the risk of its degeneration and death.

Since, then, disease or anatomical peculiarity may make it impossible for us to avoid the epiphyseal line in a given excision, it is important to inquire whether future growth will be equally interfered with, in every joint alike? Olliér has made this a matter of careful study and long experiment on the lower animals, aided by a comparison of the results of actual excisions in the human being. He has arrived at the following law :—"In the bones of the *upper* extremity, it is the ends going to form the *elbow* which grow the *least*. In the bones of the *lower* extremity, it is the ends going to form the *knee*, which grow the *most*." Therefore, excisions of the knee, shoulder or wrist are followed by more arrest of growth than those of the elbow, hip or ankle. In other words, if we excise the head of the humerus *below* the epiphysis, we shall lose *more* in future growth of the limb than if we excised the lower (condyloid) end of the humerus *above* the epiphysis, at the elbow. The wrist is as bad as the shoulder. And, in the lower extremity, if we excise the head of the femur *below* the epiphysis, we shall lose *less*, in future growth of the limb, than if we excised the lower (condyloid) end of the femur, *above* the epiphysis at the knee. The ankle is as good as the hip. It follows that the elbow gives the best results in the upper extremity; the hip (or ankle) in the lower extremity.

But other considerations now come in, for shortening in the upper extremity is of little consequence, compared with the lower; and, moreover, it is only in childhood, the growing period, that shortening can occur. The whole question of arrest of growth in the excision of joints narrows itself down, then, to the expediency of excising the *knee* in youth.

Excisions for disease give a larger percentage of recoveries than excisions for injury. The same is true of amputations. The diseased joint has already been through the inflammatory processes, and the system has become habituated to them. Yet, there are certain conditions in disease that are not so favorable. Brodie first pointed out, and later observers have confirmed the observation, that, in a patient for a long while confined to bed, the bones undergo a sort of fatty degeneration, just as the muscles do. There is a loss of phosphates, and a softening of cancellous structure, under long disuse, which resembles the incipient stage of caries.

Convalescence after excision is, at best, very slow. Three to six months for an elbow, or shoulder; eight months for a hip, and twelve to eighteen for a knee.

The ratio of mortality varies in the different joints. In the hip—uniting Dr. Hodges's and Dr. Foote's tables—we have nearly fifty per cent. of deaths, or one in two. But if we look at the influence of age, we find the mortality under ten years, 33 per cent.; from ten to twenty years, 57 per cent.; twenty to thirty years, 60 per cent.; over thirty years, 83 per cent. Thus, in childhood, when the disease is most frequently met with, after excision of the hip, two out of three recover; but in adult life, two out of three die.

Mr. Swain has collected 472 cases of excision of the knee. The mortality of all the cases averaged 27 per cent. If we include those subsequently amputated, we find the ratio of recovery, with preservation of the limb, to be about two in three. Other statistics, however, show that in chronic disease of the knee, excision is twice as fatal as

amputation. Mr. Bryant, indeed, claims to prove that, in childhood, excision of the knee is seven times as fatal as amputation; and in adult life, twenty per cent. more fatal. Accumulated statistics prove the chance of success in excision of the shoulder to be three out of four; and in excision of the elbow, two out of three.

We must bear in mind that, after all excisions, secondary amputation can usually be safely resorted to, if required; while at the hip, excision is the only operation justifiable, the mortality after amputation at the hip joint being over 90 per cent. Says Mr. Bryant, of Guy's Hospital:—"For disease of the hip and shoulder, amputation is a very rare operation; for the knee and ankle, it is yearly becoming less common. Amputation of the arm, for diseased elbow, is still less justifiable." Obviously, in joint disease, no operative interference is to be thought of, unless the articulation has suppurated and become disorganized. Amputation is out of the question, until other measures have been exhausted in vain. Amputation and excision are equally fatal, if undertaken in *acute* suppurative disease. Let out the pus, and wait for the system to become quieted, and the inflammation chronic, before you operate.

But an operation for excising the head of the femur in chronic hip-disease is scarcely more severe than an operation elsewhere for necrosed bone. It is followed by no shock, and the child usually appears better the day after the operation than the day before. When we have evidence that the pelvis is extensively diseased, we may hesitate; yet, even here, nature is capable of almost boundless repair, if the diseased parts are freely exposed. Thus, Fergusson removed the head of the femur, the acetabulum, and portions of the ilium, ramus of the pubes and ischium, with good recovery.

In excising the hip, a V-incision gives the best drainage, which is the most important point. If the greater trochanter and some muscular attachments can be saved, they promote the future usefulness of the limb. Extension by weight and pulley is to be kept up for many weeks. The results after excision, as to shortening of the limb, are about the same as after the spontaneous cure by dislocation—two, two and a half, and even three inches. But the motions of the limb and the power of everting the foot are better in the false joint of an excision than in the anchylosed dislocation of the spontaneous cure. Lordosis is also less after excision. And yet we see some excellent results from the spontaneous cure. We would not excise every case of chronic hip-disease. But in hospitals we should do it oftener than in private practice, since the hospital patient has less chance of living through the natural cure, owing to the bad state of his surroundings at home.

Excision of the knee may be classed as the least promising of all, for these reasons:—

1. The chance of arrest of growth of the femur, in length.
2. The chance of the decay of articular cartilage, necessarily left behind, if we saw below the epiphyseal junction.
3. The greater difficulty of procuring bony anchylosis, as compared with a false joint.
4. The difficulty of securing immobility and cleanliness, together, during treatment.
5. The length of confinement to bed, and the greater mortality than from amputation.

Langenbeck has devised an operation for excising the knee, and preserving a movable joint. The incision is made parallel to the ligamentum patellæ, and the patella and quadriceps tendon are preserved. We are not informed of the results of this operation, but should suppose success to be exceptional.

Excision of the shoulder gives excellent results, although we have more or less shortening of the upper arm, often to the extent of three or four inches. Wasting and loss of power of the deltoid muscle often result, also, from this excision. Yet, if a false joint can be established as a centre of motion and rotation, the elbow, forearm and hand are extremely useful.

Excision of the elbow gives the most admirable results of all: with the least arrest of growth; the greatest reproduction of bony processes; the most complete restoration of function, and the most serviceable member. The operation is done by a single straight incision, parallel to the long axis of the limb, and running over the ulnar side of the olecranon process. The tendon and fascia of the triceps are carefully preserved in their attachment to the ulna, and the ulnar nerve should be pushed off the groove of the inner condyle with its sheath unopened. By following strictly the sub-periosteal method, scraping and pushing back the periosteal sheath of the bones, we secure the reproduction of bony prominences, resembling the condyles and the olecranon. The arm is exceedingly useful. In one case in which I operated, a young man can carry a pail of water; dress himself; use his knife and fork; do up bundles; flex, extend, pronate and supinate, and even hold out a heavy octavo book at arm's length. There is a great spreading of the lower, sawed end of the humerus; and strong buttresses of new bone for the attachment of the flexors and extensors of the forearm.

Although the chance of success is not so good in traumatic cases as in those caused by disease, yet we sometimes may save those apparently desperate, while we can amputate secondarily, if the excision fails. Two cases have occurred to me, in the last three years, of very severe injuries. Both patients sustained compound fractures into the elbow-joint, with laceration of skin and muscles on the back of the joint. The tissues in front of the elbow were uninjured. Sensation and circulation in the hand were unimpaired. Formal excision of all the articular surfaces was done, and resulted, after six months, in the preservation of the forearm and hand, with a false joint.

Formal excisions of the wrist and ankle are not so frequently called for as in the other joints. Partial gouging (*évidement* of Sedillot) is applicable to these joints and to the tarsus. By Mr. Hancock, very extensive removals of the astragalus, os calcis, or smaller tarsal bones, have been done, with the result of a passable and useful foot.

Notching the Os to aid Dilatation.—In a case of *placenta prævia*, reported by Dr. M'Dougall, at a meeting of the Obstetrical Society of Edinburgh, it was found impossible to dilate the os, owing to the existence of a firm, narrow band, which passed around the whole inside circumference. All efforts to overcome the stricture by digital manipulation proving fruitless, it was decided to notch the os at four different points, by means of a probe-pointed bistoury. Immediately afterward, the operator was enabled to introduce three fingers and drag down the placenta. Previously, he had only been able to introduce the index finger, although the woman was completely anæsthetized.—*Edinburgh Medical Journal*, Feb., 1874.

Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

[Concluded from p. 239.]

Nervous System.

Nerve Cells in the Sympathetic.—Probably the chief cause of the obscurity of the physiology of the nervous system, apart from the inherent difficulty of the subject, is the looseness with which physiological deductions have been drawn from anatomical appearances. The nervous system consists of cells, fibres and granules, and because the cells occur in greater number in its more important parts, it has been assumed that the importance depended on the cells. It seems so natural to hold that the object of the fibres is to conduct, that it is only of late that any other has been ascribed to them. It has become evident that, in certain parts, the spinal cord for instance, there must be other conductors than the fibres, and it has been assumed that this place is taken by nerve cells communicating by their branches with the fibres on one hand, and with other cells on the other; but such communications have been demonstrated only occasionally, no such chain has ever been shown, and, even in the best preparations, the majority of the cell processes do not join others. The granular matter has received little attention; yet, as Henle intimates, there is no reason to consider it unimportant. Nerve cells were originally held to be apolar, unipolar and multipolar; but, as the first were in opposition to the accepted theory, and the second but little better, it was thought more philosophical to deny their existence; to say that their processes had been broken off, than to admit that there were isolated cells. Of late, however, many excellent observers agree that apolar cells do exist, though most of them seem to feel that some apology is due for so inconvenient a discovery, which, like most other modern ones in this branch, tends to unsettle rather than to confirm what has been accepted.

Sigmund Mayer, the author of the paper on the Sympathetic, in Stricker's Histology, has published a very interesting paper entitled "Observations and Reflections on the Structure of the Sympathetic Nervous System," in the *Proceedings of the Vienna Academy* (vol. 66, parts 1 and 2). This paper, which is meant to be suggestive rather than demonstrative, is the more worthy of attention that it treats minutely of appearances usually slighted, and that the author is not hampered by existing theories. Any one who has searched the sympathetic of a frog for the pear-shaped cells with spiral fibres, described by Beale, Arnold and others, is struck by the numbers of cells which differ from the described types. They are of various sizes, usually granular, often containing several nuclei. Mayer dwells on the fact that the larger have more irregular outlines than the smaller, and far more frequently present branches. He also calls particular attention to accumulations of cells—cell nests—of which each cell is nearly homogeneous, is of a faint yellow color, and has a nucleus very like that

of a blood corpuscle.* These, he is inclined to think, are younger nerve cells. He well observes that unless we look upon the nervous elements as stable structures, existing throughout the life of the animal, we must expect to find them in different stages of development. Now, remembering the intimate relations of the sympathetic with the bloodvessels, the admitted fact that red blood corpuscles can pass through the walls of the capillaries, and the rapidity with which the appearance of the escaped corpuscle is modified, we cannot deny a certain plausibility to the author's hypothesis that the ganglion cells are formed from the blood. The escaped cell, at first clear, becomes granular, enlarges and sends out processes. But the most startling part of Mayer's theory is, that the perfectly formed nerve cell has not yet fulfilled the purpose of its existence, but is still merely a transitional form which is ultimately to become a fibre. As evidence to this effect, he adduces the occurrence of single cells in the course of nerve bundles, the occasional appearance of granular matter extending from one end of such a cell among the fibres, and the not uncommon appearance of two elongated cells connected by a narrow isthmus. The author will discuss the elements of the cerebro-spinal system in a future paper. It is interesting, in this connection, to recall Ranvier's observations showing that medullated nerve fibre is developed from cells. (Vide first report on Anatomy, JOURNAL of Sept. 12, 1873, page 185)

Rudolf Arndt gives his views on the structure of the cells of the sympathetic in *Schultze's Archiv*, vol. 10, part 2. It is curious that, though Arndt's position is different from that of Mayer, several of their illustrations could be interchanged without the slightest injury to either paper. Arndt's opinion is that the cells are compound bodies, and that apolar ganglion cells are instances of arrested development. He does not give his reason for this latter opinion, which we therefore suppose he entertains solely because apolar ganglion cells do not accord with the accepted physiological theory. He divides the granular matter found in the cell-substance into two chief kinds, each of which may be still further subdivided. The two main classes are those with delicate prolongations and those without. He describes very thin sacks containing numerous small apolar cells, which evidently are identical with Mayer's cell nests. Arndt's conclusions are :—

"1. All ganglionic bodies of the sympathetic, which are supplied with several processes, that is all bipolar and multipolar ones, correspond to aggregetions of cells and are derived from several such aggregations.

"2. All unipolar ganglionic bodies, on the contrary, correspond to simple cells, and are developed from such.

"3. All so-called apolar ganglionic bodies, if large, represent abnormal forms of development of the original formative cells ; if small, they still are such cells."

Auerbach's Plexus.—Among the papers published by the Physiological Institute of Leipzig is one by Gerlach, in which he gives the results of some recent studies of this plexus, which is situated between the longitudinal and circular muscular fibres of the stomach and intestine. It consists of ganglion cells and of nerve fibres, the latter forming a coarse and a fine network. The cells are chiefly multipolar, and

* These observations were made chiefly on amphibians.

the author is disposed to doubt the existence of apolar ones, as he claims to have seen on the cells which appear to be such, the points where the processes had been broken off. The branches of neighboring cells anastomose freely, but though the nerve fibres run through the ganglionic masses, no connection between them and the cells has been observed. The plexus begins in the fundus of the stomach and increases in number of cells towards the pylorus. There and in the duodenum it is best developed. It becomes weaker as it descends the intestine. The finer network springs from the coarser, and is the one to supply the muscular fibres, but the precise manner in which the nerves join the latter is uncertain. It is known only that the finest nerves join small, spindle-shaped bodies, each of which sends out one or two delicate filaments to be lost between the muscular fibres.

Klein writes on the same plexus in the October (1873) number of the *Quarterly Journal of Microscopical Science*. The point of his paper is to show that, besides the well-known cells lying more or less in groups between the individual nerve fibres, there are other larger ones lying in the meshes of the network of the fibres, which they join by one or more processes.

The Structure of the Tactile Corpuscles is discussed by Dr. Thin in the *Journal of Anatomy and Physiology* (November, 1873). The author gave his attention chiefly to the manner of termination of the nerve, the structure of the corpuscle in general, and of the so-called transverse elements in particular. He finds that the corpuscle is surrounded by an elastic network, and is composed of a mixture of cells and elastic fibres. The transverse elements, which are found throughout the corpuscle, are the nuclei of oblong cells which end in elastic fibres. Dr. Thin finds that there is no authority for dividing the papillæ of the skin into vascular and nervous, for a nerve enters every one, whether a touch-corpuscle be there or not. The nerve passes into the interior of the corpuscle, runs toward the apex, and then, describing a curve, ends abruptly. It retains its medulla and, probably, the sheath of Schwann.

Viscera.

Kidney.—R. Haidenhain (*Schultze's Archiv*, vol. 10, part 1) has made some discoveries in the epithelial lining of the uriniferous tubules, which promise to be of considerable importance. He alludes incidentally to the disputed question of the epithelial covering of the Malpighian corpuscles, and states that he has found not only the covering, but, further, epithelial cells among the vascular convolutions. Before discussing his discoveries in the tubules, it may not be amiss to describe, briefly, the changes in size and shape which they undergo in their course. After leaving the Malpighian bodies, they are comparatively large and convoluted; then, becoming much smaller, they run down toward the pelvis of the kidney and return again to the periphery, thus forming "Henle's loops," of which the second, or ascending half, is the larger in diameter. Next comes a short, dilated, "intercalated" portion, which resembles a piece of the convoluted portion, and empties into the straight tubes which constitute the beginning of the end. The epithelium of the convoluted tubules is very peculiar, inasmuch as it does not consist of separate cells, but of a continuous pulpy mass, in which nuclei are imbedded at pretty regular intervals, together with fat globules and granules. The important part of Hai-

denhain's discovery is that the epithelial layer of these convoluted tubules is full of little rods pointing to the centre of the cavity and separated from one another by a homogeneous ground substance. Under the influence of certain reagents, nuclei appear among the rods. The author accounts for these appearances as follows :—"The protoplasm of the cells which originally lined the convoluted tubules is for the most part devoted to the formation of the rods, between which a small amount of connecting tissue (kittsubstanz) remains as a residue of the original formative material. The nucleus is, in all cases, surrounded by a greater residue of undifferentiated protoplasm, which, in some cases, is definitely limited externally, and in others passes without sharp limits into the substance surrounding the rods." The rods cease with the convoluted tubules, and the first half of "Henle's loop" presents the usually described lining of epithelial cells, with prominent nuclei, but the rods reappear in the larger or ascending half of the loop, and continue through the "intercalated" portion to the beginning of the straight tubules. The rods were found to a greater or less extent in the kidneys of animals of various classes, but with such apparent irregularity that no clue to their function could be gained by comparative anatomy. Haidenhain appears to have proved, by certain physiological experiments, that the process of excretion in the kidney is not confined to the Malpighian bodies, but, with praiseworthy caution, he offers no theory as to the function of the rods.

Poisonous Homœopathic Preparations.—In commenting on the three cases, recently reported by Dr. George Johnson, of poisoning by camphor administered homœopathically, that is, in very concentrated form, the *Lancet* of December 13th ult., remarks :—"It is not denied that homœopathists are now at great variance as to the proper doses of medicine, and that the treatment of some homœopaths is not to be distinguished from that of ordinary practitioners, unless it be by the largeness of doses. We consider this a very serious matter. The morality of the change with so little open confession is a point that must be left for casuists. But the great charm of homœopathy is gone—its intense harmlessness. Dr. Stewart gave a melancholy instance of a gentleman dying from the effects of a double homœopathic dose of strychnia, which he had taken to make up for having omitted a previous dose. Dr. Eastes said he had met with some homœopathic globules which contained one grain of morphia instead of $\frac{1}{1000}$. Hahnemann believed in the dilution of drugs; his successors, in their concentration."

A safe Method of Inducing Premature Labor.—Under this caption, Dr. B. R. Morris (*British Medical Journal*, Sept. 6, 1873) speaks of the great success he has had with electricity. A metallic sound, covered, except at the point, with a non-conducting substance, is inserted within the os uteri, while the other pole is placed upon the abdomen; they are then connected with the battery, and a slight continuous current passed through the uterus for ten minutes. This process is repeated several times, and is invariably followed by delivery in two or three days. Gaiffe's small pocket battery is the most convenient instrument for this purpose.

Bibliographical Notices.

The Principles and Practice of Medical Jurisprudence. By ALFRED SWAINE TAYLOR, M.D., F.R.S., Lecturer on Medical Jurisprudence in Guy's Hospital. Second Edition. Two volumes. Philadelphia: Henry C. Lea. 1873. Pp. 723 and 672.

IN preparing a second edition, the author found that so much new material had accumulated and so many new decisions had been rendered by the courts that it would be impossible to retain the old form of the work, and therefore the present edition has been published in two volumes. These contain nearly all the material found in the first edition, besides all the recent important cases which have occurred.

The section on Poisoning has been entirely revised, the results of all the new and improved processes of chemical analysis being given, and many new poisons being referred to. New methods for the detection of blood are added. The work includes the evidence given in the Tichborne case, and valuable additions have been made to the chapters on Asphyxia, Criminal Abortion, Infanticide, Insanity and Life Insurance.

As the work now appears, it embraces all the facts bearing on medical jurisprudence which the author was able to collect up to the very moment of going to press. Several new engravings have also been added.

Report of Columbia Hospital for Women and Lying-in Asylum. By J. HARRY THOMPSON. Washington: Government Printing Office. 1873. Pp. 430.

RECENTLY, the United States government published the first two volumes of the Medical and Surgical History of the Rebellion. The work was one of great value to the medical profession throughout the world, and the only regret which was expressed when these volumes appeared was that, owing to the great expense attending its publication, but a very limited number could be put into the market, and these only through the patronage of Congress.

If the money which has been foolishly spent in publishing the work whose title we have placed at the head of this review, could have been spent in printing additional numbers of the Medical Record of the Rebellion, everyone, with the possible exception of J. Harry Thompson, would have said that the money was well spent.

The work before us is nothing more or less than an advertisement of Columbia Hospital for Women and of its chief, J. Harry Thompson. As a medical work, it possesses little if any value. Much of it is an abstract from the writings of medical men distinguished as writers on obstetrics and diseases of women. These abstracts are, of course, valuable, but they receive no additional value from the surroundings in which they find themselves in this work. Very little original work of any value is to be found in the volume, and a review in detail of its contents seems, therefore, superfluous.

BOOKS AND PAMPHLETS RECEIVED.

A Historical Account of Christ Church, Boston. An Address delivered on the One Hundred and Fiftieth Anniversary of the Opening of the Church, Dec. 29, 1873. By the Rev. Henry Burroughs. A. Williams & Co. 1874. Pp. 44.

The Origin and Propagation of Disease. By John C. Dalton, M.D. New York: D. Appleton & Co. 1874. Pp. 30.

Report of the Pennsylvania Hospital for the Insane for the year 1873. By Thomas S. Kirkbride, M.D. Philadelphia. 1874. Pp. 18.

Epidemic Diseases as dependent upon Meteorological Influences. By C. Spinzig, M.D. St. Louis, Mo. 1874. Pp. 58.

Boston Medical and Surgical Journal.

Boston: Thursday, March 12, 1874.

The final death-blow was given to the various "Museums of Anatomy" at the meeting of the Board of Aldermen on Monday. As our readers will remember, the report of the Committee on Licenses, made at the meeting last week and recommending the closure of exhibitions of this character, was, to the surprise of every one, laid upon the table, and it was understood that the Board was about evenly divided on the question of refusing licenses. We are glad to see that some members of the Board have since listened to reason, and have been convinced that the remonstrants were merely contending against indecency and corruption of morals, that they were not actuated by any "professional jealousy," that "the redeeming features of these Museums can be seen for nothing elsewhere," and that, although promises of good behavior were freely given by the petitioners, the chances of their keeping the same were small and that the prospects of having such filthy exhibitions as we had last year were great.

The report of the Committee on Licenses, refusing Jourdain a license and directing the Chief of Police to close up his museum, was adopted by a vote of eleven yeas to one nay, Alderman Power voting alone in the negative. This vote covers, also, Hallock's case and all others of this class, and thus disposes of the question for the rest of the year. We doubt if any of this gentry will feel sufficiently encouraged to make a new attempt to open another show of this kind for some time to come.

There are those who may have thought, and the otherwise unaccountable silence of the daily press has implied, that more talk has been made about this matter than the importance of the subject demanded. We beg to call their attention to the fact that this has been nothing more or less than a contest between morality and immorality, in which, we are happy to say, the former has triumphed; and that an important and successful raid has, at the same time, been made upon a class of institutions which have been a disgrace to the city. We congratulate the remonstrants that their efforts in behalf of morality have been crowned with success, and the profession that such a marked step forward has been taken in the suppression of quackery.

The so-called Esmarch method for preventing hæmorrhage during operations may be looked upon as partaking of the nature of a revival and modification, we should hesitate to say improvement, of an old

and much employed device in surgery, rather than as the adoption of any new principle. A glance at text books on Surgery, or an inquiry into the traditions of hospital practice, or even into the more homely expedients in vogue with surgeons who do not enjoy the advantages of hospital experience, will convince one that the custom of depriving an extremity or any portion of it of its blood, either for the purpose of facilitating an operation or of preventing any unnecessary loss of blood in an anæmic and broken-down subject, is by no means a new one. The element of novelty, which has given to Esmarch's method its present popularity, is rather of a sensational than a useful character. This consists in the entire absence of blood, in the absolute dryness, in fact, with which operations are performed under this method. Examples of this kind are familiar to all in the minor operations of surgery, and are probably as old as surgery itself. An amputation of the thigh or a protracted operation upon a necrosed tibia without the appearance of even a single drop of blood has, on the other hand, a charm of novelty, not to say of luxury, about it which has led many to forget that all the advantages claimed for this method are to be obtained by a simple roller bandage and tourniquet, which have been used for this purpose for many years, both in this country and in Europe. We do not, indeed, obtain with the old method so perfect an immunity from hæmorrhage as we do with the new. The former is, however, both as regards the condition of the patient and the convenience of the operator, none the less effective, while some of the dangers of Esmarch's method, as paralysis, sloughing and risk of forcing poisonous substances into the circulation, are drawbacks which are likely to prove serious obstacles to its permanent adoption. It is worth while to remember all this when we see the method alluded to in medical journals as a "marked surgical improvement," and read in the daily newspapers of the new "triumph of modern surgical science."

The Pathology of Cholera.—Dr. Hayem, of Paris, recently (Sept. 19th, 1873) imparted to the Société Médicale des Hôpitaux *(L'Union Médicale,* Oct. 4, 1873) the results of his investigations on the pathology of cholera. The blood of a patient in a state of algid collapse presented the following peculiarities:—The red globules were diffluent and viscid, variously altered in shape, and having a tendency to become agglutinated in irregular masses, instead of becoming piled up, as usual in healthy blood. Dr. Hayem does not, however, find in the blood any alteration which may be considered as specifically characteristic of cholera. The dejections of choleraic patients, at all periods of the disease, even in the stage of premonitory diarrhœa, were found to contain vast quantities of proto-organisms (bacteria, bacterida, and vibriones as classified by Davaine); as many as ten varieties of vibri-

ones were observed, and several kinds of sporules arranged in strings (probably bacterium termo and bacterium putredinis). Dr. Hayem doubts the existence of any special parasite belonging to cholera; he thinks that the choleraic dejections are chiefly characterized by an advanced state of putrescence from the very outset of the disease. The digestive tract invariably presented alterations of an inflammatory nature, extending from the œsophagus to the rectum, but most marked in the last portions of the ileum and in the ascending colon. The bowels were always found distended by liquid and gas, the fluid contents amounting in all cases to two or three quarts. This enormous subtraction of liquid, representing at least a third or a half of the entire mass of the liquor sanguinis, and uncompensated by absorption of drink, accounts for all the marked collapse and algidity observable in cases when vomiting and diarrhœa were not at all abundant. A microscopic examination of the diseased intestinal wall showed stasis, chiefly venous, in the mucous and submucous layers, and extensive, often complete desquamation of the epithelium, which was floating in the fluid contents of the bowel, its cells being infiltrated with fatty granules. The lymphoid tissue of the mucous membrane and villi was swollen, and infiltrated with granular lymph corpuscles. Dr. Hayem observes that these lesions, constituting general gastro-enteritis, offer no specific characters, as they differ in no way from those which attend intense catarrhal inflammations.

This short summary of Dr. Hayem's communication shows that his investigations are, so far, chiefly confirmatory of what was already known of the pathology of cholera. At the Société de Biologie, the subject of bacteria in connection with cholera was brought up on Oct. 4th (*Gazette Hebdomadaire*, Oct. 10, 1873). The discussion, in which Drs. Charcot, Ranvier, Hayem and Lionville took part, showed that, in the present state of our knowledge in relation to the natural history of bacteria, no satisfactory theory of the part played in pathology by these parasitic organisms could be established.

A DANGEROUS PESSARY.—At a meeting of the Detroit Academy of Medicine, Dr. Jenks presented a pessary, removed by him from a woman a short time before. It had been placed in position by a physician about six weeks before the patient had consulted him. Upon examination, he found the uterus retroflexed, and the neck, which was exsanguinated, was protruding through the pessary. Upon removing it, he discovered that it had cut nearly half way through the neck, and he had no doubt, had it been left in place a few weeks longer, but that it would have entirely amputated the neck of the uterus.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(*Wednesday and Saturday, February* 25 *and* 28, 1874.)

OPERATIONS were performed in the following cases:—Abscess, Malignant Onychia, Submaxillary Tumor, Needle in Wrist, Abscess, Traumatic Stricture of Urethra, Painful Cicatrix, Dorsal Dislocation of the right Hip, Caries of Femur.

Abscess—deeply situated under the pectoralis major of a man twenty-two years old. Opened by Dr. Cabot.

Malignant Onychia—of three months' duration, on the great toe of a woman. Evulsion of the nail and cauterization of the ulcerated surface with nitric acid by Dr. Cabot.

Submaxillary Tumor—of seven years' duration, in a woman twenty-six years old. Of the size of a walnut, slow growth, and not accompanied with pain. Excised by Dr. Cabot. It proved to be glandular.

Needle in Wrist—of a woman. Extracted by Dr. Cabot. Joint not opened.

Abscess—on the outer aspect of the thigh, in a male adult, with anchylosis of the joint from old hip-disease. Opened.

Traumatic Stricture of the Urethra—from a fall astride of a wagon wheel, three months ago; urethra admits a No. 5 (French scale) elastic bougie. Stricture ruptured with the large tube of Voillemier's instrument.

Painful Cicatrix—following an old amputation for two frost-bitten fingers, at the metacarpo-phalangeal articulation. Dr. Cabot removed the heads of the second and third metacarpal bones, and the whole of the cicatrix.

Dorsal Dislocation of the right Hip—of fourteen weeks' standing, in a man sixty-four years old, who had been crushed to the ground by the falling limb of a tree. Injury recognized immediately after the accident and treated by a "natural bone-setter." Present condition as follows:—Shortening of two and one half inches; slight flexion of the thigh; inversion, the toes crossing the instep of the other foot; head of the femur to be felt on the dorsum of the ilium; more mobility than would be expected in a dislocation. This, together with the moderate flexion of the thigh, was thought to indicate extensive rupture of the capsular ligament. Having been etherized and placed upon the floor, reduction by the "flexion method" was persistently, but unsuccessfully, attempted. The head of the femur could be readily moved, and the dislocation changed from dorsal to thyroid, but it was not possible to lift, or jerk the bone into its socket. In forcibly flexing, rotating and "circumducting" the limb, with a view to breaking up adhesions and enlarging the opening in the capsule, if this latter were the obstacle, the external branch, if not the whole of the Y-ligament, was ruptured. This was shown by the shortening which persisted and the position of the limb, which was now straight, while the foot could be inverted or everted at will; a condition of things constituting an "irregular dislocation" of Dr. Bigelow. The neck of the femur was not fractured, and the head of the bone could still be felt upon the dorsum and rotated as before. "Vertical traction" with pulleys, and with Dr. Bigelow's apparatus for "angular extension," was then practised, with efforts at local guidance of the head of the bone into the acetabulum, but equally without success. The shortening was reduced to one inch, and the head of the bone could be brought down to the edge of the acetabulum, but not be made to enter the cavity. After an hour of unavailing manœuvres, further measures were abandoned, and the patient was returned to the ward, where his legs were confined side by side, and extension, as in a fracture, applied to the foot by adhesive strips.

It was remarked that the obstacles to reduction were not apparent. That the capsule was not sufficiently ruptured to admit the head of the femur through the "button-hole," was hardly consistent with the circumduction practised and the mobility attained. There was no reason to think that the acetabulum was fractured, and the obliteration of this cavity was shown by cases to be of rare occurrence, even after the lapse of a longer period of time from the injury than had occurred in this instance. The operator expressed regret that the familiarity of Dr. Bigelow with the exceptional features of dislocated hip was not available in bringing to a more successful termination the protracted and varied manipulations which had been undertaken. On Monday, a repetition of the efforts at angular extension, with pulleys and local guidance, was made for half an hour, but with renewed unsuccess.

Caries—of femur, in a male adult. The disease was located in the upper third of the femur, below the great trochanter and not connected with the joint. Dr. Cabot enlarged a sinus on the outer aspect of the thigh; also an

opening into the shaft with which it communicated. The diseased cancellous tissue, amounting in bulk to that of a walnut, was removed with gouge and cutting forceps.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE following surgical operations were performed last Friday, March 6th:—

A Cystic Tumor was removed, by Dr. Cheever, from the neck of a patient 45 years old. The growth was of three months' duration, and was slowly increasing. It appeared as an irregular swelling, situated just behind and above the angle of the lower jaw; it was apparently attached deeply, and there was an obscure sense of fluctuation. The dissection of a V-shaped flap from above the tumor betrayed the character of the growth, as a cyst extending deeply in the tissues behind the ramus of the jaw.

A Dislocated Shoulder, complicated with a Fracture of the Neck of the Humerus on the same side, was treated by Dr. Thorndike. The injury was of five weeks' duration, and the crepitus of the fracture was still distinct. The dislocation was forwards. Sufficient union of the fragments had taken place to permit the breaking down of adhesions and the reduction of the shoulder by manipulation.

Dr. Wadsworth performed Canthoplasty on both eyes of an adult patient affected with chronic (trachomatous) conjunctivitis. The object of the operation was to relieve the constant constriction of the lid upon the globe, and, by lessening the tension of the conjunctiva, to promote its healing. The operation differed slightly in the two eyes. In one case, the skin and subcutaneous tissue at the outer canthus were divided with scissors down upon, but not through, the conjunctiva, the section being carried outwards two lines in length; in the other eye, the incision involved the conjunctiva with the skin. The tarsal ligament was snipped slightly at the upper margin of the wound, and the conjunctiva immediately adjacent to the incision was loosened with the closed blades of the scissors. Sutures were passed to unite the edges of the enlarged canthus to the underlying mucous membrane.

Dr. Wadsworth exhibited a patient on whom this operation had been done the week before. The success had been marked; the upper lid was set free, so that it no longer pressed tightly on the globe, and it could now be readily exposed for inspection and for the application of local remedies. The inflammation of the conjunctiva had already subsided considerably.

Other operations were as follows:—

Dr. Cheever incised a Fistula in Ano; Dr. Thorndike tapped a Hydrocele and injected it with tincture of iodine, and also performed Circumcision in a case of congenital phimosis; Dr. Wadsworth removed a Tumor from the lower lid.

On Monday, March 2d, Dr. Cheever Amputated the Arm of a patient who had suffered a compound and comminuted fracture of the forearm, in consequence of a fall from a freight train while it was in motion. The left forearm had multiple fractures; the hand was cold and without pulsation; the arm was torn up behind, four inches above the elbow. Dr. Cheever amputated by equal skin flaps, three inches below the shoulder.

On Tuesday, March 3d, Dr. Cheever operated in a case of Severe Injury of both Legs, from the premature explosion of a shot-gun. While the patient was crouching down, his fowling piece, loaded with No. 4 shot, was prematurely exploded by his dog. The muzzle was almost in contact with his right leg, just below the knee. The clothes were set on fire, and the skin was scorched by the nearness of the charge, when fired. After producing a deep lacerated wound of the anterior muscles of the right leg, the charge also struck the left leg, just above the ankle; here it produced a double compound fracture of both bones, with much laceration. No pulse was perceptible in either artery of the left foot; but there was good pulsation in both, in the right one.

Although the wound of the right leg was two inches below the knee, and no obvious communication existed, yet the knee-joint contained air, which gurgled loudly when the joint was moved; more careful examination revealed a longitudinal fracture of the shaft and head of the tibia, running up towards the knee-joint. Through the chink, air must have been forced into the joint by the explosion of the gun.

Being very unwilling to amputate one leg above the knee and the other below, Dr. Cheever decided to try to save the right limb. The wound was prolonged downwards and cleaned, and the leg was put upon a ham splint. Secondary hæmorrhage, or suppuration of the compound fracture into the knee, were the great dangers to be dreaded. The left leg was amputated, in the middle of the calf, with equal skin flaps. F. W. Draper.

Correspondence.

Local Anæsthesia of the Larynx.

Boston, Feb. 5, 1874.

Messrs. Editors,—I did not expect to be obliged to defend the practice of the Vienna professors when I wrote the article on "Local Anæsthesia of the Larynx" for your pages. My only object in writing it was to explain the method successfully used in Austria, and which I do not remember to have seen in the English literature, except in a short foot-note in Dr. Mackenzie's work; but the letter of Dr. Cohen is so discourteous and overbearing in its tone, and the statements so much at variance with my own experience and teaching, and what I believe to have been the experience of the majority of laryngoscopists, that it calls for a reply, though I should much prefer to leave the discussion to those of greater experience and who are more competent than myself in such matters.

What the "erroneous impression" is that the article is likely to "promulgate," the gentleman does not condescend to state. Is it that the method was not that described? Or that the results were not as stated? Or that the inference from the experience in the large number of cases quoted, where, in spite of the large amount of morphine used, "consciousness was never lost," that anæsthesia can be safely produced, is not warranted? It is not claimed that in all cases there is absolute freedom from risk; no one familiar with the effects of powerful drugs like morphine would infer that from the statement made. But it is claimed that the method is safe in the same way that chloroform is safe. The risk is very small, and, in cases of necessity, who would hesitate to use chloroform if he were unable to obtain ether?

The assertion that "it places the patient in unnecessary peril," is simply begging the question. Who is to decide whether the risk is necessary, Dr. Cohen on general principles, or the surgeon in a given case?

The next statement is, perhaps, the most remarkable in the letter. "It is a mistake to believe that the intra-laryngeal use of instruments requires, in the majority of cases, a tedious course of drillings; except in rare instances, such a course can only be required in the case of bunglers or beginners."

That bungler (or shall I say beginner?) Türck, writes:—

"There are certain individuals who, at the very first examination, bear very well a close contact of the entire glottis region, with sounds and other instruments, and where, without further preparation, an intra-laryngeal operation can be undertaken. This occurs, however, very seldom, and among the cases operated on by me up to the present time *only one single individual* of this description have I found. In order to blunt the sensibility of the larynx, an oft-repeated, very tedious drilling with sounds and other instruments, extending from a few days to some weeks, had to be undertaken."—*Klinik der Krankheiten des Kehlkopfes*, page 545.

It would take too much space to quote from all the writers who state this practice to be essential. Tobold, Bruns, Schroetter, Stoerk, in short, all authors, except Mackenzie and Cohen, recommend it. These gentlemen use

an instrument with which previous training is not so necessary, though it would never answer for one who had not an educated touch, for the point is seldom seen after passing the epiglottis. And a careful examination of Mackenzie's reported cases shows the necessity of previous drill in a large number of cases. The great value of the drill is, however, to allow the operation to be carefully and thoroughly carried out, and not done in a happy-go-lucky, hit-or-miss style.

To return once more to the subject of anæsthesia. It is not all that is to be desired, and each operator must determine for himself as to the expediency of its use; but I believe it will be still used in those cases which do occur where an operation, and a speedy one, is necessary, in an over-sensitive patient, in spite of the fulmination from Philadelphia.

F. A. Harris, M.D.

A Case of Extensively Ruptured Perineum.

Messrs. Editors,—In your note in parenthesis, under the article of Pregnancy and Delivery without Rupture of the Hymen, in the Journal of Jan. 29th ult. (page 125), you reflect on the wisdom of Prof. Cole's treatment in not at once dividing the hymen on its discovery. The writer had a more complete case of imperforate hymen, which was reported in the Journal of Nov. 10, 1859, where, by delay, the cartilaginous hardness softened, and was easily broken through by the finger as the head descended, showing the wonderful powers of nature which accoucheurs often witness.

A case of an accident somewhat similar to the above, without any obstacle from the hymen, was reported by Dr. John Yale, of Ware, at the meeting of the Hampshire County Medical Society at Northampton. It was a case of labor attended with laceration of the recto-vaginal septum, the sphincter ani and part of the perineum, so as to permit the transit of a full-grown child, leaving the anterior portion of the perineum entire.

The wife of a mechanic, 19 years old, was taken in her first labor Jan. 10, 1866; the labor lasted twenty-four hours. Two hours before the termination, I was called. Pains once in three minutes. Head engaging in the superior strait; labor easy; presentation facial. The recto-vaginal septum gave way first, then followed the rent of the sphincter and perineum, like so much wet paper, and the child was born with great ease through this artificial opening, the mother exclaiming that "she got through much easier than she expected." Had I been absent from the bedside, I might have considered it an accident from want of care; but, being seated by the side of the patient, giving support to the perineum, in such a manner as to give a forward direction to the head, I was not able to prevent its occurrence; I only had time to think of chloroform to arrest the pains, before delivery was completed, such was its rapidity from the commencement of the rent above the sphincter.

One of my colleagues, Dr. D. W. Miner, was called, who verified my diagnosis and assisted in the treatment. The probable cause of the above termination was a faulty sacrum; being too perpendicular, the head of the child, instead of receiving its direction anteriorly in the direction of the axis of the lower outlet, was forced downwards upon the posterior portion of the perineum.

Four sutures of silk were passed to bring together the edges of the perineum. No sutures were applied to the sphincter, that the recto-vaginal septum might the better heal. The patient was put on her side, with her knees together. The urine was drawn by catheter twice in twenty-four hours, for five days, when she was able to pass it without assistance. The bowels were moved at the end of five days by castor oil and injections, and again in four days. After this time, there was no feeling of any discharge through the wound and the wind could be restrained.

After six weeks' quietness in bed, she got up well. I had hoped that she might conceive again, to test her capabilities; but now that she has become a widow, her prospects in that direction are gloomy. ***

Eau de Cologne.

Boston, Feb. 14, 1874.

Messrs Editors,—The other day, while looking through the medical pamphlets preserved in our City Library, I came across an advertising circular entitled "*Vertus et Effets de l'excellente Eau admirable, ou Eau de Cologne*, approuvée par la Faculté de Médecine, le 13 Janvier, 1727"; from this I learned—what was quite novel to me—that eau de Cologne was originally concocted for a quack medicine. In the circular, which in type, paper and language bears evidence of belonging to the last century, it is stated that this water was invented by an Italian, Sig. Paul Feminis, an old distiller of Cologne.

It is described as a "volatile spirit, extracted from the rarest and most delicate simples; an elixir which has the power of restoring the parts of the body that are attacked by any disease, or predisposition to the same, of fortifying and reëstablishing their natural functions, of insinuating into them a moderate and living warmth, which, sympathizing with their own, reänimates their vital forces, aids the coctions, and forcibly expels all the excrements."

It seems to have been employed internally and externally, and to have been a sovereign remedy for apoplexy, paralysis, palpitation, obstructions of the liver, spleen and kidneys, migraine, sore eyes, ringing in the ears, toothache, gout, gravel, burns, bruises, &c. &c., to have greatly aided the course of labor, and to have been a specific in diseases of the womb.

The sheet ends with the usual

"*Caution.*"

"It is undisputed that the Sr. Paul Feminis, inventor and author of the Eau admirable de Cologne, before dying, left his secret and the composition solely to Jean Antoine Farina, who notifies and cautions the public that Eau de Cologne, which is made and sold under any other name whatsoever, is neither of the quality nor composition of that invented by the originator. The present owner, therefore, as the sole successor and inheritor of the said secret, making the only veritable Eau de Cologne, gives notice besides that every other brand is wanting in the good effects pertaining to that of the above said author, whose successor is Jean Antoine Farina, distiller at the sign of the City of Milan, Golden Scales St., Cologne."

The qualities for which the water is now so celebrated were evidently too insignificant to be classed among its multitudinous virtues. If possible, it would be interesting to puruse the advertising circulars of the successive years down to the present day, so as to follow the gradual withdrawal of its claims to be a therapeutic agent. Popular pathology seems to have changed but little from that here recorded. Yours very truly,

James R. Chadwick, M.D.

A Case of Double Nipple.

Boston, March 1, 1874.

Messrs. Editors,—The following case of double nipple may be, perhaps, of some interest to the readers of the Journal.

M. T., adult American woman, married about five years ago; one miscarriage, two births (boys) followed. The younger of the children is now at the breast.

When quite a young girl, the woman noticed the two marks or "moles," about two inches below the nipples; as she grew older and the breasts were developed, the "moles" were shaped after the pattern of the usual nipple, only smaller. During pregnancy, the darkened areola was seen plainly on all four nipples, and, after delivery, milk flowed freely from all equally. Not wishing to favor the flow from the lower pair, she never allowed the child to nurse from them, and, after a few weeks, no great leakage was remarked, except on pressure.

The older boy has the same marks, quite plainly seen on the right side, less on the left.

John Dixwell, M.D.

Medical Miscellany.

APPOINTMENT.—H. J. Barnes, M.D., and W. C. Holyoke, M.D., have been appointed Assistant Surgeons at the Boston City Hospital for the ensuing year.

VALESCUS, of Taranta, says (*Bonetus*, p. 288) "that he who presumes to cure a hernia in a cacochymick, a weak or an old man by incision, does plainly desire to be accounted a murtherer."

CONTAGIOUSNESS OF THE PLAGUE.—"One at the table told an odd passage in this last plague; that at Petersfield, I think he said, one side of the street had every house almost infected through the town, and the other, not one shut up."—*Pepys's Diary*, 1667.

CONGENITAL ABSENCE OF BOTH EYES.—A case of congenital absence of both eyes appeared recently at the clinic of Mr. Liebreich, the patient being an infant about two months old. The orbits were mere fissures; the lids were normal; the orbital fissure was covered with conjunctiva, and there was a normal lachrymal secretion, as was evident when the child cried.—*London Correspondent of Detroit Review of Medicine.*

THE PROPER TREATMENT OF CHILDREN.—The *Medical Times and Gazette* says of the annual discourse before the Massachusetts Medical Society:—

"The conclusions at which Dr. Buckingham has arrived are consistent with common sense and experience. The facts in the Address may be fairly endorsed by practitioners in this country."

CAUTION TO DRUGGISTS.—A mixture of chromic acid and glycerine is a formula which has recently been highly recommended in certain affections of the mouth, scrofula, &c. Dr. Mascarel takes occasion to warn druggists that when these two substances are vigorously rubbed up together, the result is a lively *explosion*, an accident which can be averted by adding the glycerine drop by drop, and grinding slowly.—*Il Raccoglitore Medico*, No. xxxi. 1873.

USE OF GLAZIER'S PUTTY IN SURGERY.—Ordinary mixed putty has been found by Mr. Courvall to be the softest and most applicable means of treating excrescences or tumors of various kinds where compression is desired, as it moulds itself so neatly to the skin. He believes it to be superior to dextrine, silicate of soda, or plaster bandages. It is a cheap and always attainable material.—*The Medical Press and Circular.*

CHLORAL IN CHOLERA MORBUS.—Dr. Louis B. Bouchelle (Georgia) has employed chloral in cholera morbus for the past two years with marked success. He states that, in the case of adults, a single dose of twenty to thirty grains has in every instance served to quiet the stomach and bowels, and the patient drops into a refreshing slumber, from which he wakes, in a few hours, relieved.—*The Southern Medical Record*, January, 1874.

SUCCESSFUL COLOTOMY IN THE INFANT.—At a recent meeting of the Manchester Medical Society, Mr. Bradley related the case of an infant, then three months old, on whom he had performed colotomy two days after birth. From the close approximation of the ischiatic tuberosities, and the entire absence of the perineal bulging, he had opened the colon in the left lumbar region, without making an incision in search of the rectum. This, he argued, was the best course in such cases, as the almost invariable fatality of colotomy in the infant he believed to be largely due to the loss of blood which generally attended the exploratory incisions, which were, moreover, very often unsuccessful. During the operation, the kidney was wounded; but from this no evil effects appeared to have flowed.—*British Medical Journal*, January 24, 1874.

Ossification of the Placenta.—A young woman, aged 18, was seized with active symptoms of labor at the end of the seventh month of gestation. The pains, which at first were moderate, were followed, at the expiration of twenty-four hours, by severe rigors, which were only relieved by the administration of opium and chloroform. These pains and rigors recurred at various intervals for forty-six days, when true labor commenced, and terminated in the birth of a child of moderate size. Upon detaching the placenta, it was noticed that there was an unusual feeling, and, upon examination, the whole attaching surface was found to be covered with a net-work of bone, containing solid plates as large as a dime, and a line in thickness.—*The Southern Medical Record*, January, 1874.

Treatment of Threadworm.—In a recent lecture by Dr. J. Spencer Cobbold, it was stated that the difficulty experienced by physicians in relieving patients from oxyuris vermicularis arose from the old and mistaken notion that the parasite resides in the rectum and sigmoid flexure, whereas recent investigations have shown that the entire length of the colon is the territory inhabited by the threadworm, while the cæcum constitutes the parasite's true headquarters. For this reason, active saline cathartics should be given to wash out the contents of the colon and cæcum, injections being afterwards given to dislodge such oxyurides as have been driven down to the lower bowel.

Public Schools—Precautions against Infectious Diseases.—Dr. Whitmore, the medical officer of Marylebone, has, in consequence of the prevailing and fatal epidemic of measles, sent a circular not only to the managers of every school in his district, but to every member of the London School Board, in which he states that measles is to a considerable extent disseminated by the free intercourse which takes place amongst children of the poorer classes in parochial and other public schools. He suggests that all school managers should take the trouble to ascertain whether children attending schools come from houses where measles, &c., exist, and prohibit further attendance until such houses are free from infection; also, that any room or cupboard used for children's hats, caps, bonnets, cloaks, &c., should be constantly disinfected by the free use of chloride of lime or carbolic acid. —*London Medical Record.*

NOTES AND QUERIES.

Preparation of Croton Chloral Hydrat.—Croton oil is cut in absolute alcohol and is then treated with chloroform, the same as the common chloral hydrat.

Boston, February 27, 1874. Leopold Babo.

The publishers acknowledge the receipt of subscription from Dr. O'G., of Dublin.

Mortality in Massachusetts.—*Deaths in seventeen Cities and Towns for the week ending February* 28, 1874.

Boston, 132; Worcester, 13; Lowell, 21; Milford, 6; Chelsea, 3; Cambridge, 14; Salem, 13; Lawrence, 14; Springfield, 5; Lynn, 11; Fitchburg, 1; Taunton, 4; Newburyport, 5; Somerville, 10; Fall River, 17; Haverhill, 2; Holyoke, 6. Total, 277.

Prevalent Diseases.—Consumption, 44; pneumonia, 36; scarlet fever, 15.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, March 7th, 119. Males, 58; females, 61. Accident, 1; abscess, 1; apoplexy, 3; bronchitis, 2; disease of the brain, 2; cancer, 4; cyanosis, 1; cholera infantum, 1; consumption, 29; convulsions, 4; debility, 4; diarrhœa, 1; dropsy, 1; dropsy of the brain, 1; diphtheria, 1; scarlet fever, 8; disease of the hip, 1; disease of the heart, 6; hæmorrhage, 1; homicide, 1; intemperance, 1; disease of the kidneys, 1; congestion of the lungs, 2; inflammation of the lungs, 13; malformation of the bowels, 1; marasmus, 4; old age, 3; paralysis, 1; pleurisy, 3; premature birth, 1; peritonitis, 2; puerperal disease, 2; scalded, 1; syphilis, 2; suicide, 1; teething, 1; whooping cough, 3; unknown, 4.

Under 5 years of age, 49; between 5 and 20 years, 5; between 20 and 40 years, 30; etween 40 and 60 years, 18; over 60 years, 17. Born in the United States, 85; Ireland ; other places, 12.

THE

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Original Communications.

ACUTE PERIOSTITIS OF THE OCCIPUT AND UPPER CERVICAL VERTEBRÆ.

By GEORGE ATWOOD, M.D., Fairhaven, Mass.

Read before the Boston Society for Medical Improvement.

G. M. L., of Mattapoisett, a railroad contractor, aged 50, and weighing, in health, about two hundred pounds. For the last six years, he has been a teetotaler; he was never a great eater, though, from the nature of his business, he was, necessarily, irregular in his habits. For many years, he has been engaged in business that demanded great mental and physical labor. Excepting a few severe accidents, and occasional slight attacks of rheumatism, Mr. L. has enjoyed good health.

About the 24th of August, 1873, he began to complain of soreness in the left nostril. On the 26th, Dr. Sparrow, of Mattapoisett, was called, and found what appeared to be erysipelatous inflammation, spreading over the left side of the face and neck. It continued to extend upward to the forehead, and downward into the mouth and fauces. He had considerable fever. The pulse was 100 and upward. There were signs of slight inflammation of the lungs.

Sept. 4th.—I saw the patient in consultation with Dr. Sparrow. The whole of the left side of the face and neck was swollen; the left eye was entirely closed; the right, partially so. The color of the skin was very dark, particularly on the nose; there was vesication over about one-third of the diseased surface. The difficulty of opening the jaw was so great as to preclude the possibility of satisfactorily examining the mouth. Difficulty of swallowing and of talking was not great, though it was evident that the pharynx and posterior nares were involved in the disease. Some sloughing from the mouth had occurred. The respiration was not much disturbed. The pulse was 100, and regular. The mind was clear. The bowels were easily moved. He was directed to take milk, beef-tea or mutton-tea, egg-nog or porter, quinine and iron.

For about a week, the case seemed critical; but, after this time, Mr. L. appeared to be improving daily, in appearance and strength. He ate well and slept well, and rode out several times, the last time on October 14th. He remained out three hours. The wind was east, and cold; but, at the time, he suffered no inconvenience. All the functions of the body seemed natural. The pulse, however, never had varied from 100, but it continued regular. There had been no reason to suspect cardiac trouble.

Oct. 14th.—Mr. L. called the attention of Dr. Sparrow to pains in the neck. These were regarded as neuralgia, and little, or nothing, was done.

Oct. 15th.—This afternoon, I received a note from Mrs. L., stating that her husband was suffering from severe pain in the neck and shoulders.

Oct. 16th.—I was sent for to-day; and, as Dr. Sparrow had left town, to be absent several weeks, I took charge of the case. My first impression of the case was that it was neuralgia; but the next day all doubts were removed. There were frequently recurring spasms of the neck; the muscles were rigid; the jaw was tightly closed; the patient could only take liquids, and these, on being swallowed, excited spasms; he could not lie down in bed, for, immediately on making the attempt, spasmodic action would follow, so as to render the act impossible. On moving the head, pain would commence in the neck, and extend upward over the back of the head, and downward to the shoulders, but never any farther. The pulse was 95, and at times intermitting. During the next four weeks, he did not lie in bed, but slept in a chair, when he was not walking the room.

Nov. 15th.—Is taking iodide of potassium, bromides, cod-liver oil, strychnia, with tincture of iodine, blisters and counter-irritation to neck. He inhales ether according to necessity. He can now lie in bed for a short time. The pain and suffering are less. For the first time, I used Gaiffe's electro-magnetic battery in the case. Before passing the current, the pulse was 100; in twenty minutes after, the patient was freely perspiring, with the pulse at 88.

Nov. 16th.—Pulse 80. Feels more comfortable. Slept better.

Nov. 24th.—Feels comfortable; spasms growing less frequent. He can move his head without pain. He lies quietly in bed at night. He relishes his food, and is very fond of mutton broth, which he has taken, daily, from the commencement of his sickness; grapes are also relished. The pulse 100, intermitting. Temperature in axilla 97·5°.

Nov. 27th.—Pulse 80, regular. Pain less. He moves his head slowly, as if fearing the recurrence of spasm.

From this time to about the middle of December, there seemed to be gradual but certain improvement, as indicated by less frequently recurring spasms, which were now comparatively slight, and did not occur oftener than once or twice in twenty-four hours. There were, indeed, days during which no spasms occurred. Other indications of improvement were observable: ability to rise from bed without assistance, and to rest in bed all night; good appetite and digestion, and ability to move his head without pain. On the other hand, it is proper to say, there was slight deafness, and the pulse was seldom below 100. In lying down, or on rising, he would place both hands under his head, apparently to prevent suffering. The face never resumed its natural color; at times, it was very red, at others, pale or mottled.

During the second period in the history of this case, as perfect rest was maintained as was compatible with the comfort of the patient. While ether greatly relieved pain and spasm, morphia, belladonna and chloral produced symptoms of cerebral disturbance, that contraindicated their use, and they were, therefore, discontinued.

Dec. 15th–20th.—About this time, Mr. L. complained of what he

termed snapping on turning his head, and would ask if we could not hear it. A few days afterward, on placing my hands on his head and slowly turning it, a snapping was not only felt and heard by myself, but heard by his wife, standing near. Many times subsequently to this date, the same sensation was experienced.

Dec. 31st.—This afternoon, while resting his head on the shoulder of his wife, he suddenly exclaimed, "There, didn't you hear that? It was as loud as a pistol." He was immediately placed on the bed with a paralyzed right arm. The left arm was slightly affected. He complained of a "pricking" sensation in the lower extremities. Pulse 47; two hours later, 80. His continued exclamation was, "I'm coming together!" In reply to the question, "How does your neck feel?" he said, "I feel like rubbing a match a little." A few days later, he said, respecting the sensation of "coming together," that he seemed to be shortening. To Dr. Sparrow, who was now in daily attendance, he said he felt "as if he was not more than six inches from head to foot."

Jan. 8, 1874.—To-day, I consulted Dr. J. B. S. Jackson, who, after listening to my account of the case, suggested caries of the vertebræ. He could give no encouragement; absolute rest was recommended. In this opinion, Drs. Bigelow and Ellis concurred. About this time, Dr. Gordon, of New Bedford, saw him, and, at his suggestion, chloral was administered with good results. For a few days following the paralytic attack, his discharges were passed in bed; but, subsequently, he gained sufficient strength to raise his body upon a pan placed beneath him. Power in the arms became so far restored as to allow him to raise his hands to his head. With the exception of a few hours of delirium, that occurred about a week prior to his death, his mind was unimpaired to the last.

The quantity of urine greatly increased, until the last week of sickness, when, for the first time, were discovered indications of a change from a healthy condition; it was seen to be loaded with phosphates.

Jan. 21st.—Towards evening, he called for oysters, and, I think, toast. When brought to him, he said that, instead of these, he would have some gruel. As this was handed him, he screamed, "Take the fastest horse and go for the doctor!" The next moment, he was dead.

On dissection, the condyles of the occiput, both articulating surfaces of the atlas, the axis and the odontoid process were denuded and eroded, the latter feeling smooth and like a piece of ivory. No induration of the tissues, and no effusion of pus or lymph was apparent; but the periosteum and ligaments around the spine, and on the base of the occiput, to the extent of an inch from the foramen magnum, could be easily torn; the softening being more marked on the left side than upon the right, although the tissues generally were of a dull red color and softened. The transverse ligament connected with the odontoid process was destroyed, and mobility of the head was quite free.

The history of this case I have written hastily, from a few written notes and from memory. In doing this, while noting every important particular to secure accuracy, I have endeavored to be as concise as possible, and to this end have refrained from expressing any opinion of my own.

Dr. Jackson, who read the foregoing history of the case to the So-

ciety, showed the atlas, which he had received from Dr. Atwood. In the recent state, the soft parts separated readily from the body of the bone, and from the laminæ, except at their posterior extremity, as in the case of a bone that had been pretty thoroughly macerated. The four articular surfaces were quite denuded of cartilage, but the intervertebral substance, above and below, seemed unaffected. The spinal marrow and membranes within this vertebra looked sufficiently well. Now that the soft parts had been removed, and the bone had been dried, the surface of the body was seen to be roughened, and the upper articulating processes decidedly carious, though the lower were smooth.

A CASE OF PYÆMIA FOLLOWING A WOUND OF THE FEMORAL ARTERY AND AMPUTATION.

By Peter Pineo, M.D., of Hyannis, Mass.

The following case may present some spiritualistic, as well as surgical, interest:—

Mr. ——, a somewhat noted Spiritualist, who believed he had seen departed friends face to face, and had repeatedly received messages from the spirit land, was induced to suspect his wife's faithfulness. His jealousy at length rested upon an unfortunate musical professor. After urging the man to go to his house to tune his piano, and saying that he had to be absent from home during the afternoon, he secreted himself in his own cellar to listen. Very soon, he imagined that piano-tuning was neglected, and unnecessary conversation with his wife was in progress. In his frenzy, he rushed from the cellar into the room, and made an attack upon the surprised gentleman with a jack-knife, the blade of which was exceedingly sharp, and ground to a point. He knocked the man down and commenced stabbing him in the lower extremities. During the encounter, the assailant received a severe wound in his thigh, from his own knife, in his own hand. The wound was more than four inches deep. The knife struck the bone, and, glancing off, wounded the femoral artery, as it dips down into the thigh to form the popliteal; he lost, in a short time, a large quantity of blood, producing partial syncope.

I saw him in about twenty minutes after the occurrence, and, after etherizing, made the necessary incisions, and tied the wounded vessel *in situ*, above and below the point of injury. A bandage was then evenly, but not tightly, applied from the toes to the thigh.

During the first week, we were encouraged to hope that the leg was being nourished by collateral circulation. In the latter part of the second week, however, unfavorable symptoms manifested themselves; it became evident that gangrene had commenced, and it was decided to amputate. With the advice and assistance of Dr. Leonard, of Sandwich, and Dr. Doane, of Hyannis, amputation was done at the lower part of the middle third of the thigh.

Reaction was slow, but at length complete; and the third week after removing the limb, the stump had nearly healed, the appetite and strength were good, and the patient was apparently out of danger.

One day, after dressing the limb, and while everything appeared satisfactory and promising, I said to the patient, in the presence of

Dr. Doane, "Well, sir, I see no reason why you should not get well, and be about soon." "Oh," said he, "I have always known I should get well. I was told by my spirit friends that all this would happen; and they told me, also, that I should pull through, all right. Now," said he, "mark my words, doctors, if I do not get well, do you never have any confidence in Spiritualism, hereafter."

The latter part of the sixth week from the time of receiving the wound, a severe chill supervened, which was repeated at intervals, followed by delirium and great distress, and he died the forty-fifth day after the injury.

It is just to state that the first ten days after the injury, he was in a condition of great mental exaltation, and almost night and day would recite the occurrence and its causes to innumerable persons, notwithstanding the strictest prohibition, advised and repeated again and again.

MANAGEMENT OF THE PLACENTA IN ABORTION.

By W. A. Harvey, M.D., Chicago, Ill.

Abortions, which have become so frequent of late, and so disastrous, should command in ready use all the resources of our art, to diminish their evil effects.

Although I may not hope to offer anything new on this subject, I may, at least, call the attention of the profession anew, and with emphasis, to one unfortunate complication of it, namely, to the usual retention of the placenta, and its attendant evils, after the expulsion of the fœtus, in cases occurring from the third to the fourth month of pregnancy.

For the first two months after conception, the fœtus and its sacs are relatively so small, and their connection with the uterus so feeble, that they are expelled together *en masse;* also, after the fourth month, and as full time is approached, the placenta readily follows the birth of the fœtus. But there is a period, and one, too, of the greatest liability to abortion, when, from the greater volume of the placenta, and its more firm connections with the womb, the fœtus alone may be expelled, and the after-birth remain intact. Pains may now cease for days, or weeks; the patient, and physician also, deceived by this circumstance, and by the promiscuous appearance of the clots, suppose the woman to be "through and all right," and so the attendant takes his leave of the case, but with the certainty of being recalled, it may be, only to witness the fatal results of heedlessness or unskilfulness.

Mrs. C., aged 25 years, pregnant the third time, aborted September 17, 1873, forty miles away in the country. One week after, while at her domestic duties, she had a sudden "gush of blood," and flooding; this was repeated many times, and without pain, until Nov. 8th, when, in the meantime having removed to this city, she was again attacked with alarming flooding, and prostration from the previous hæmorrhage. The fourth physician who treated this case was now called, and prescribed cold and morphine; this having only a temporary effect, on the following morning, Nov. 9th, I saw the patient, and, from the history given, suspected retained placenta, a suspicion which was

confirmed on examination. About one-half of the placenta, in eight fragments, was, at this time, removed, and after the use of ergot and the tampon for twelve hours, the remainder, with much pain and not a little shock to the patient, was taken away.

Rest, and the quieting effects of large and repeated doses of opium, restored the woman, save the anæmia, prostration and shattered health, from which she can never fully recover. After two months of wasting and vain effort of the natural powers to reduce the uterus to its normal size, the os was found rigid and nearly closed, and the placenta of a lively flesh color, apparently in progress of growth, and firmly adhered, all of which conditions rendered its removal difficult, if not dangerous.

A few months since, I was called, in connection with Dr. T. D. Fitch, of this city, to another case of this class, and found the woman moribund from metro-peritonitis, the consequence of retained placenta, as in the other case detailed. A noticeable feature of the case of Mrs. C. is that, after the expulsion of the fœtus, on Sept. 17th, entire freedom from pains was experienced until the evening of Nov. 9th; during all this time, she had suffered alarming hæmorrhages, beguiling her physicians as to the true condition of things, they not having made a physical examination of the parts. We would not speak of this as being singular, for absence of pains is very common in these cases.

The above may be regarded as representative cases of this whole class, both in history and results, and we venture the assertion that nearly all the deaths and broken-down systems from abortion occur from retained placentæ of abortions of this middle period.

We conclude then, that, in the first and third periods, no especial skill is called for, generally; but in the second period—from the third to the fourth month—too much attention, care and skill cannot be expended.

To recapitulate, if retained placenta is the rule here, and the negative signs and symptoms are misleading; if, moreover, peril in delay be imminent, what is the duty of the physician? Plainly to empty the womb of its contents at once (or after a few hours' use of ergot), whilst the uterus is in its normal soundness and physiological activity, and the system in health and in blood. The woman, inspired by the tonic effect of relief at hand, exercises remarkable fortitude and effort. Whereas, in the delay, she finds herself exhausted in body, and depressed in spirits; she has neither fortitude to endure the trial, nor physical soundness to escape the dire results of any method, now practicable, to relieve her of this offending and death-dealing foreign body.

Called, then, to any case of abortion or miscarriage, the fœtus expelled, and the after-birth remaining, the physician, uninfluenced by any statement of the patient or attendants as to its conclusion, should make a vaginal examination, and if the placenta is found, it should be removed, without unnecessary delay, in the following manner:—Place the woman on her left side, knees well drawn up; and, with left hand on the bowels, press the uterus firmly down into the pelvis, and hold it there, while, with the index finger of the right hand, the whole placental mass is separated and removed. Should the elevated position of the uterus render it necessary, the hand, well lubricated,

may be introduced into the vagina for the purpose. Any pain or shock caused by this procedure will disappear after sufficient rest, and liberal doses of laudanum.

Nearly thirty years of practice and observation have taught me the prime necessity of delivering the placenta in this class of cases without delay, not leaving its removal to an uncertain future, and to the powers of nature, as taught by some medical writers. It is difficult to conceive of a complication of affairs in which one should feel justified in delaying such removal beyond the space of a few hours from the birth of the fœtus. For whatever objections there might be to this early delivery would be very much increased by the delay.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. Edes, M.D.

Quinia and other Cinchona Alkaloids.—M. Bochefontaine (*Archives de Physiologie*, Nov., 1873, p. 724) has continued the researches described in the last report, which were principally directed toward determining the accuracy of the facts stated by Prof. Binz and others as to the action of quinine upon the activity of bacteria, vibrios, and the white blood corpuscles. It is to be noticed that where Binz supposes a destruction of activity, or a paralysis of these organisms, Bochefontaine speaks as if he had a right to expect the destruction of the bacteria themselves. He has experimented upon frogs, which were rendered *bacteriemic* by the injection of cyclamine, to determine whether the bacteria were killed by the subsequent injection of hydrochlorate of quinia or their development prevented by its previous exhibition. Although M. Bochefontaine himself sums up his results differently, it would seem, from the detailed account of the experiments, that the quinia was not so inefficient as he represents, and that it did exert some influence in the direction indicated by Prof. Binz. The truth, however, can only be arrived at by further experiments, and not by criticism of printed accounts.

Dr. Baxter (*Practitioner*, 1873) has been testing the relative vigor of the action exerted upon the movements of bacteria, albuminous fermentation and the movements of the white corpuscles, by quinia, the other cinchona alkaloids, and some drugs which have been proposed as substitutes therefor. Quinia is doubtless excelled by other antiseptics, but by none which can be introduced into the system in equal doses. In practicable doses, it exerts an inhibitory and not a toxic action on microzymes.

The four cinchona alkaloids are nearly equal in antiseptic power. Quinia is equalled by quinidia; then comes cinchonidia and then cinchonia. This corresponds to their anti-periodic powers.

Among reputed anti-periodics, sulphate of bebeeria seems to equal quinia in antiseptic power. (This is one of the alkaloids of the "greenheart," a tree growing in British Guiana, used in ship-building.)

Among reputed antiseptics, sulphocarbolate of sodium and strychnia have a decided value, though below that of quinia.

Sulphite of sodium is a feeble, though decided, antiseptic; the hyposulphite has little or no power. Berberina (a bitter alkaloid found in the barberry, in hydrastis, in columbo, in gold thread and many other vegetables) and æsculin are hardly, if at all, antiseptic.

Picrate of potassium is almost, if not quite, equal to quinia. It is doubtful if it can be administered in sufficient doses. (It has been used in doses of one or two grains in the treatment of intermittent, with alleged success.)

Picrate of potassium exerts a comparatively feeble influence over the spontaneous movements of the colorless corpuscles.

It is interesting to note, in connection with the statements as to the efficacy of the cinchona alkaloids, that the large manufacturers of quinia in this country are making an effort to introduce into medical practice the other alkaloids, which have, heretofore, been comparatively valueless in their hands. It is to be hoped, for economical reasons, that their attempt may be favored by physicians, since a material reduction of price could then take place in quinia, which now, on account of the disuse of the other alkaloids, has to bear nearly the whole expense of the bark and processes of manufacture.

Dr. Allbutt *(Practitioner*, January, 1874) contributes a valuable paper on the antipyretic action of quinia, based on clinical observation. He says that he "cannot regard quinine as an indirect antipyretic by virtue of any power as a direct antiseptic." He does not state any new fact or introduce any novel views, but his paper may be read with advantage by those who are in a hurry to apply to practice, without careful clinical study, the results of physiological experiment, and are prone to neglect the maxim, more important now, perhaps, than ever before in medicine, "festina lente."

Eucalyptus.—Binz *(Centralblatt*, 1873, p. 573) has determined that eucalyptol (the fragrant æthereal oil of *eucalyptus globulus)* possesses some power in checking putrefaction and fermentation, diminishes the irritability of the spinal cord, and appears to reduce the temperature. It produces no disturbance of the appetite, sleep, or urinary excretion. A portion of the eucalyptol seems to pass unabsorbed from the bowels, a portion to be excreted by the kidneys and lungs, and another portion to be oxidized in the system. It does not possess the peculiar action of quinia upon the protoplasm of the white blood corpuscles, or of vegetable cells, and does not prevent the transmission of ozone by the coloring matter of the blood. It seems to have acted as an antipyretic in some cases of traumatic fever and articular rheumatism. Dr. Burdel, a physician practising in the Sologne, the most malarious region of France, has used the powdered leaves, tincture, extract and "essence" (oil) of eucalyptus in the treatment of intermittent, and concludes that it can in no way rival quinia, or act as its substitute. Of one hundred and twenty-three patients, of whom about half were affected with the quotidian, the others with the tertian and quartan types, eleven were cured without relapse, twenty-two for five days, thirty-three for nine days, while in fifty-seven the treatment was without result. Of the eleven complete cures, eight were performed during a residence in the hospital, which Dr. Burdel *(Centralblatt*, 1873, p. 688) has observed is sometimes in itself sufficient to stop the attack. If anti-malarial drugs are to be correctly valued, they must be tried on patients in the infected region, surrounded by all its

influences; and under these circumstances quinia alone is of unquestioned value. Next to it in value, of all antiperiodic agents, comes alcohol.

Dr. Œffinger (*Blätter für Heilwissenschaft*, No. 14, 1873, and *British Medical Journal*, Jan. 3, 1874) accounts for the discrepancy in the results of different observers with eucalyptus, by stating that there are two kinds, which he names, respectively, eucalyptus globulus latifolius and eucalyptus globulus longifolius. The former he found to have little or no effect; the latter scarcely ever failed. A much smaller dose of the fresh leaves is required than of the dry. [This might be expected, since the active principle is a volatile oil. Are the discrepancies in observations any greater than occur with most new remedies?]

A new alkaloid, ditain, is said to have been successfully used as a substitute for quinia. (See JOURNAL, No. 1, 1874, p. 16.)

Bromides.—Prof. Binz, in the *Practitioner* of January, 1874, makes a vigorous onslaught upon the inaccuracy and insufficiency of many of the observations which have been published relative to these salts, which is answered by Dr. Anstie, in the same number, defending the use of the bromide of potassium, chiefly on clinical grounds. The most important points to be deduced from the comparison of the two papers are as follows:—

The value of sodium, ammonium, calcium and magnesium bromides, and bromine itself, has not been shown to be equal to that of the potassium salt, but the contrary. It is probable that chloride of potassium may have the same action as the bromide. This point wants further evidence, especially clinical. Sufficient weight has not usually been laid upon the constitution of the drug most frequently used as a *potassium* salt, nor upon its effect, as a potassium salt, upon the heart.

The "contraction of arterioles" theory is decidedly *unproven*. The action of the bromide is not to be compared to that of the iodide, which is a much less stable salt in the organism.

On the other hand, the statistics of epilepsy treated by bromide of potassium are too large and too various to be put in the same category with homœopathic cures of croup with spongia, or insomnia with calcarea. Less extensive observations also speak strongly in favor of the mild hypnotic and anti-reflex action of the bromide, which is certainly not obtained from *all* other potassa salts. As to the chloride, the experiments are yet to be tried. If it equals the bromide, we shall have the advantage of a cheaper and more agreeable drug.

Dr. Binz says nothing as to the bromide of lithium, and does not allude to Dr. Weir Mitchell's observations thereon. Dr. Anstie, however, accords to them their just importance. Thus it would appear that lithium may replace the potassium without loss of effect, and, *perhaps*, chlorine the bromine.

(To be concluded.)

NEW FLOATING BATH FOR LONDON.—The project which has been on foot for many years to furnish the great metropolis with baths similar to those which are so popular in Paris, seems destined at last to be put upon a practical and definite footing. A company has been started, with Admiral Elliot as chairman, and a capital of £50,000, which, if carried out with spirit, cannot fail to be a success, both in a hygienic and a pecuniary point of view. —*Medical News.*

Bibliographical Notices.

A Universal Formulary, containing the Methods of Preparing and Administering Officinal and Other Medicines. By R. Eglesfeld Griffith, M.D. Third Edition, carefully revised and much enlarged, by John M. Maisch, Phar.D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Philadelphia: Henry C. Lea. 1874.

This well-known work, of which the present edition is issued under the supervision of Prof. Maisch, seems correctly and fully to represent the present state of pharmacy. In it we find not only the officinal formulæ for officinal drugs, but a very large number of others which are now, or have been, in use for dispensing both the ordinarily used drugs, and many others of reputation in domestic, empiric or fanciful practice. Its fulness may be estimated by the presence of sixty-five recipes under the head of aloes, and one hundred and thirty-six under opium, which do not include fifty-two under morphia.

Formulæ are given for the manufacture of the various elixirs, syrups, &c., so popular at present, thus affording to the apothecary and physician an easy method of avoiding those widely advertised proprietary preparations which do so much to injure scientific and honest pharmacy, and postpone a correct popular appreciation of the resources, as well as the limits, of drug-therapeutics.

Full justice seems to be done to the many real improvements in pharmacy, and the physician may look, with confidence of success, for means for making almost any practicable or useful combination of medicines which he may think the peculiarities of the particular case demand.

Besides these formulæ, which constitute the bulk of the work, we have recipes for anatomical injections, boot blacking, ink, varnish and dietetic preparations, as well as remarks on the management of the sick room, external remedies and the usual index of diseases.

To the presence of this latter there is, perhaps, no solid objection, since it is to be looked upon merely as a suggestion or reminder, but it always seems to us that the constant use of such tables in hand-books, both of pharmacy and therapeutics (vide Stillé and Ringer), cannot help perpetuating, in some minds, a confused notion of a necessary and intimate connection between efficient therapeutics and the administration of some drug. They impart, besides, a most unpleasant resemblance to domestic homœopathic literature.

The general index, without which half the value of such a work is lost, appears essentially complete, and the whole work forms a most useful and reliable book of reference for the physician and pharmacist.

Transactions of the American Otological Society. Sixth Annual Meeting, Newport, R. I., July 16, 1873.

Report on the Progress of Otology. By C. H. Burnett, M.D. Read before the American Otological Society, at the Annual Meeting, July 16, 1873.

The transactions of the American Otological Society are among the best and most valuable of the annual professional publications. The present volume sustains the high position that the previous ones have obtained. The report on the progress of otology, by Dr. Burnett, is the first paper in the transactions. Many publications on the structure and on the diseases of the ear have appeared during the past year; Rüdinger has written an account of the structure of the labyrinth, and Waldeyer one of the cochlea and acoustic nerve; works of special features of disease have also appeared, as, for instance, a treatise on "Tinnitus Aurium," and on "Progressive Hardness of Hearing." Politzer's magnificent plates, illustrative of the anatomy of the

organ of hearing, are to be mentioned; each plate is about two and a half feet long by one foot and a half high, and magnifies the various parts of the organs of hearing in this proportion. The methods of investigating, examining and treating the structures composing the auditory organs have been multiplied by many workers. Voltolini has invented a pneumatic aural speculum; De Rossi, of Rome, a binocular otoscope; Trautman has investigated the physics of the concave mirror; "ear cough" has been investigated by Dr. C. B. Fox, of Scarborough, England, who has found this cough to be excited by an irritation of the meatus auditorius externus in certain individuals.

Several articles have appeared on tenotomy of the tensor tympani muscle. The importance of promptly trephining the mastoid process, in accumulation of pus in this bone, is illustrated by several cases and extracts from papers. Interesting cases of ear disease, by Drs. A. H. Buck and Charles J. Kipp, are given. There is a very valuable paper, by Dr. J. Orne Green, "On the Method of performing Tenotomy of the Tensor Tympani Muscle." A paper on the value of this operation, by Dr. R. M. Bertolet, follows, very naturally, the one just mentioned. Among the other papers, is one on the reaction of the auditory nerve under the galvanic current, by Dr. Clarence J. Blake. The transactions and the report on otology are very beautifully printed on excellent paper, and are a credit in every way to the American Otological Society.

Eighteenth Annual Report of the Trustees of the State Lunatic Asylum at Northampton. Boston. 1874. Pp. 66.

THE Northampton Asylum continues under the charge of Pliny Earle, M.D., than whom few have devoted themselves more assiduously to the study of aberrant forms of mental action. His report is worthy of an attentive perusal, not only from the insight it gives us into the working of the institution during the past year, but also, because it contains his views upon questions which, before long, are likely to command the attention of our legislators, and which already urgently demand a practical solution. Dr. Earle laments the want of an institution, intermediate in its character between an asylum and a prison, for the confinement of criminal lunatics, or, as they are termed in newspaper parlance, persons of modified responsibility. The moral delinquencies of these individuals should certainly be palliated, or extenuated, by reason of their mental derangement; but, on the other hand, consideration for the safety of society renders it essential that they should be restrained in the future from putting life or property in danger.

There has existed, of late years, a large amount of crime, connected with a weak rather than an unsound mind, committed by persons respectably connected, who had previously sustained a good moral character, but who, having, as it is termed, "an over-mastering organization," were weak in self-control, and thus yielded to temptation. For this class of offenders, there naturally exists a strong public sympathy, which is often shared by those whose duty it should be to bring them to trial. As a result of this sympathy, the law-officers, rather than condemn these individuals to the society of hardened felons, suffer them to escape entirely from all punishment. It occurred to us, in reading the plea of Dr. Earle, that, if it is demanded by public opinion that mercy be shown to these delinquents, as well as to the legally insane, they too might be consigned to this proposed institution, the term of their confinement being proportionate to the degree of their offence.

The opinion is also expressed by Dr. Earle, that our State institutions would be more complete if there were a separate asylum for epileptics, a class which is characterized by more peculiarities than any other of the insane, requiring special treatment, and even special furniture for their rooms. They prove, moreover, a great source of annoyance, excitement and alarm to the other patients. A calculation is made to show that, if the construction of a hospital capable of receiving two hundred and fifty patients were at once undertaken, by the time it was completed the number of available patients in the State would be sufficient to fill it.

Treatise on Diseases of the Eye. By Dr. Carl Stellwag (von Carion), Professor of Ophthalmology in the Imperial Royal Hospital of Vienna. Translated from the Fourth German Edition and edited by D. B. St. John Roosa, M.D., Chas. S. Bull, M.D., and Chas. E. Hackley, M.D. Fourth Revised and Enlarged Edition. New York: Wm. Wood & Co. 1873. Pp. 915.

We congratulate the translators of Stellwag that the book has been received with such favor as to authorize the issue of a fourth edition within so few years. Considering the size of the book and the fact that it treats only of a special subject, this could only have been possible in case it possessed exceptional merit, as it undoubtedly does. The rapid sale it has met with testifies also to the fact of the increasing interest felt in the general profession in the study of diseases of the eye.

The present edition has been enlarged by nearly one hundred and fifty pages, and very considerable portions have been re-written. In almost every chapter, additions have been made to bring the work up to the present state of our knowledge.

The numerous references to authors on every page make it invaluable for any one desiring to read up a particular subject, and in this respect it has no rival. Another advantage it possesses over all other treatises in English and most of those in other languages, is the anatomical description given of the different parts of the eye. While, however, the very fulness with which the literature has been considered adds much to the book, it detracts at the same time occasionally from the connectedness of the style, and, frequently necessitating much condensation, renders it by no means always easy reading.

The additions by the American Editors are well chosen, and their appendix on the methods of use of the ophthalmoscope, particularly the account of the upright method, which Loring's adaptation of the instrument has done so much to make of practical use, is specially valuable. Dr. Bull's name appears for the first time in this edition as one of the translators, and we believe we are correct in giving him the credit for the greater portion of the work which the translation of this enlarged and revised edition required.

The print is the same as in former editions; the paper is somewhat thinner, so that, although the number of pages is greatly increased, the size of the volume remains about the same. O. F. W.

The Second Annual Report of the State Board of Health of Minnesota. 1873.

This is a pamphlet of nearly a hundred pages. The subjects treated of are Inebriate Asylums, Typhoid Fever, The Influence of the Climate of the State upon Diseases of the Lungs and Air-Passages, Inspection of Public Institutions, and the Health of Towns.

The third subject alluded to is one in which the profession and the public of other States are about as much interested as those are who live upon the spot. As the Committee say, "the attention of the country for many years has been directed to Minnesota, because of the reputed healthfulness of its climate. Questions have arisen as to how far this reputation is merited, and as to what climatic conditions and influences this comparative healthfulness is due." It is the received idea with people on the seaboard, that going to Minnesota is, for consumption, going from death to life. Rev. Mr. Patterson, a member of this committee, publishes some valuable remarks upon the subject. He says that the beneficial influence of Minnesota has been felt more largely and permanently by those who have been suffering from pulmonary hæmorrhage, but that it is very doubtful if bronchial troubles are not aggravated. The same opinion was expressed to the writer of this notice by Dr. D. W. Hand, of St. Paul, the President of the Board. The remarks close with a couple of important statements, which, if true, are worth bearing in mind. First, if health is restored, the payment therefor is permanent residence. A return to the eastern climate is almost certain to prove fatal. We believe our own professional experience has shown this. The second is a matter which every invalid should know, that he should warm the air by breathing through the nostrils and keeping the mouth shut. C. E. B.

Boston Medical and Surgical Journal.

Boston: Thursday, March 19, 1874.

A recent number of the *London Medical Record* contains an abstract of a clinical lecture by Professor Skoda, on constipation, particularly that of pneumonia. The lecturer considers the physiological differences of habit in individuals, and concludes that these differences do not affect health. He states that fæcal matters may sojourn for a long time in the intestinal canal without undergoing any modifications prejudicial to the organism, and that constipation does not in itself constitute a state very dangerous to the general health. This fact has hitherto been too much disregarded in practice, and much harm has been done by the untimely use of purgatives.

The gases which are developed in the intestinal canal are retained with the fæcal matters. They are necessary for the evacuation of the fæces, assisting this process by diminishing the friction of the fæcal masses against the walls of the intestine. In cases where these gases are not present, the evacuations will take place with difficulty. In cases of prolonged constipation, there is usually but little gas present.

Besides gases, there must also be fluids present in the intestinal canal, in order that defecation may be easy. We should endeavor to introduce such fluids as are not immediately absorbed. Those fluids stay longest in the intestine which are obliged to unite with bases before absorption can take place. This transformation always requires a certain time, during which the fluids will act as irritants of the intestine, and facilitate evacuation. But these means are fruitless when constipation is prolonged. There is then a complete arrest of peristaltic movements of the intestine, and we must act differently. Skoda has employed, with the best results, quinine, friction on the abdominal walls with aromatic oils, and the energetic faradization of the abdomen. Hydrotherapia and warm baths are also very efficacious. Oppolzer employed cold compresses to the abdomen. Gymnastic measures also assist these means.

Since the retention or the increase of fæcal matter in the intestinal canal exercises no morbid influence on the system, Skoda states that one cannot too strongly insist on the fact that it is absolutely useless to give a purgative in the course of pneumonia, when there is reason to desire that the patient should be left at rest. It is only when he becomes incommoded by the accumulation of gases and liquids tending to embarrass the respiration that we should seek to unload the intestine.

When constipation has lasted several days without inflation of the belly being produced, it is absolutely useless to interfere, for it is a sign rather favorable for the normal condition of the malady. We do not diminish at all the intensity or duration of pneumonia by provoking intestinal flux; on the contrary, a new affection—intestinal catarrh—is created, which can but be prejudicial to the general condition, and augment the malaise. The old idea, that the respiration becomes less embarrassed in patients with pneumonia when diarrhœa supervenes, is a false one. When, in the conditions here pointed out, there is any indication for putting an end to constipation in pneumonia, clysters should be employed, and purgatives should, as much as possible, be withheld. The administration of a purgative gives rise in the majority of cases to a certain excitement of the patient, and he commonly finds himself far less well after the purgative than he was before it. Oppolzer has shown that this same state of things is true of the use of tartar emetic. By its exhibition, the condition of the patient is temporarily made worse, and it is only when the effect of the medicine has passed off that he experiences relief, the relief being due not to the action of the remedy but to the disappearance of the malaise, which the remedy had superadded to the primitive state of the patient.

From these considerations, the deduction is that in the great number of diseases we are to abstain from purgatives as long as they are not indicated in the clearest manner.

We publish to-day a letter from Dr. Charles Kidd, of London, who thinks that we have not done him justice in some editorial remarks we made on his paper on Chloroform and Ether in the *Edinburgh Medical Journal.*

It certainly was not our intention to treat the question otherwise than fairly, and we still cannot see that we have done so. The passage to which we particularly objected was the following: "The well-known seven deaths at Lyons, and forty-one of the Boston Committee, all from ether, are, from insufficient knowledge, forgotten or misrepresented." We thought that this passage gave an entirely wrong impression, and we have not yet had reason to think otherwise. We leave the matter to our readers without comment, merely regretting that Dr. Kidd had not adopted, either in his letter or in his paper in the *Edinburgh Journal,* that temperance of expression the imputed absence of which in others he so much deplores.

A Successful Case of Abdominal Section for Intussusception was reported by Mr. Hutchinson at a late meeting of the Royal Medical and Chirurgical Society. He appended to the report the following observations :—

1. That it is by no means very uncommon for intussusception to begin at the ilio-cæcal valve, and to progress to such a length that the invaginated part is within reach from the anal orifice, or even extruded.

2. That it is of great importance in all cases of suspected intussusception to examine carefully by the anus.

3. That in almost all cases of intussusception in children, and probably in most of those in adults, the diagnosis may be made certain by handling the invaginated part through the abdominal wall.

4. That the prognosis of cases of intussusception varies much ; first, in ratio with the age of the patient, and, secondly, with the tightness of the constriction.

5. That in a large proportion of the cases in which children under one year are the patients, death must be expected within from one to four or six days from the commencement.

6. That in the fatal cases death is usually caused by shock, or by collapse from irritation, and not by peritonitis.

7. That in many cases it is easy, by estimating the severity of the symptoms (vomiting, constipation, &c.), to form an opinion as to whether the intestine is strangulated or simply irreducible.

8. That in cases of strangulated intussusception, whilst there is great risk of speedy death, there is, also, some hope that gangrene may be produced, and spontaneous cure result.

9. That in cases in which the intussuscepted part is incarcerated and not strangulated, there is very little hope of the occurrence of gangrene, and it is probable that the patient will, after some weeks or months, die, worn out by irritation and pain.

10. That the chances of successful treatment, whether by the use of bougies, or by the injection of air or water, are exceedingly small, excepting in quite recent cases, and that if the surgeon does not succeed by them promptly, it is not likely that he will succeed at all.

11. That the cases best suited for operation are those which have persisted for some considerable time, and in which the intestine is only incarcerated ; and that these cases are also precisely those least likely to be relieved by any other method.

12. That in the cases just referred to, after failure by injections, bougies, &c., an operation is to be strongly recommended.

13. That the records of *post-mortems* justify the belief that, in a considerable number of the cases referred to, the surgeon will encounter no material difficulty after opening the abdomen.

14. That the circumstances which might cause difficulty are—(1) the tightness of the impaction of the parts ; (2) the existence of adhesions ; and (3) the presence of gangrene.

15. That, in selecting cases suitable for operation, the surgeon should be guided by the severity of the symptoms to an estimate of the tightness of the strangulation, and as to the probability of gangrene already set in.

16. That, in cases in which the patient's symptoms are very severe, or the stage greatly advanced, it may be wiser to decline the operation, and trust in the use of opiates.

17. That the operation is best performed by an incision in the median line below the umbilicus.

18. That, in cases of intussusception in young infants (under one year of age), the prognosis is very desperate, scarcely any recovering, excepting the few in whom injection treatment is immediately successful, whilst a large majority die very quickly.

19. That the fact just mentioned may be held to justify, in the case of young infants, very early resort to the operation.

20. That it is very desirable that all who, in the future, have the opportunity for *post-mortem* examination of intussusception cases should give special attention to the question as to whether an operation would have been practicable, and should record their results.—*The Doctor.*

Manual Compression of the Uterus.—This manipulation was first suggested by Crédé to expel the placenta, and then employed by Kristeller to aid the expulsive action of the uterus during labor. Travellers have reported the custom as long common among uncivilized nations, such as the Javanese. Dr. Lehmann reports two cases (*Schmidt's Jahrbücher*, 159, 7, 1873) in which the progress of the parturition was arrested by the absence of uterine contractions. Firm pressure was applied to the abdomen from above downwards for thirty seconds, and repeated at intervals of two or three minutes, with the effect of completing the delivery after three or four repetitions of the procedure. The placentæ were expelled immediately after, and the uterus contracted normally. In atony of the uterus, this treatment would seem to be very efficacious.

The Twin Monster of African descent, called Millie-Christine, recently received a visit, in Paris, from Professors Tardieu and Robin, in the interests of anatomical science. Though provided with a written order from the Prefect of Police, the gentlemen succeeded only partially in accomplishing the object of their call, inasmuch as the "nightingale" declined to submit to examination below the waist. The visitors determined the existence of two hearts, whose beats were not isochronous. Prof. Tardieu facetiously stated to the Academy of Medicine that he had demonstrated two wills also; for while in response to his request, one of the intellects consented to an examination of the pelvic parts, the other intellect stoutly protested against it, with expressions of anger. The attendant of the twins said that the bond of union was at the sacrum, and that there was a single anus and one vulva.

It is stated in the newspapers that a French railway company has entered a suit against the twins for attempting to evade the payment of fare by purchasing only one ticket instead of two for transportation. In this instance, Prof. Tardieu would not be able to prove the existence of two volitions with the same facility as in the first case, for both intellects would probably think alike with regard to the number of seats to be paid for; and the company itself will find in the result of the suit another illustration of the adage that "two heads are better than one," in such delicate matters.

Was the Plague Contagious?—"In this parish of Michell's, Cornhill, one of the middlemost parishes, and a great one of the town, there hath, notwithstanding this sickliness, been buried of any disease, man, woman, or child, not one for thirteen months last past. And the like, in a good degree, in most other parishes, I hear, saving only of the plague in them."—*Pepys's Diary*, 1667.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, March 4 and 7, 1874.)

OPERATIONS were performed in the following cases:—Hare-lip, Fistula in Ano, Traumatic Talipes Equinus, Necrosis.

Hare-lip—double, with cleft palate, in a child three weeks old. One side, only, operated on; the central intermaxillary portion of the lip being interfered with to the least possible extent, that its size might be preserved; and the attachment to the bone being left intact, that it should, at a subsequent operation, offer a firmer and broader hold to the lip of the remaining fissure.

Fistula in Ano—in a middle-aged man. Laid open by Dr. Clark.

Traumatic Talipes Equinus—in a young man, following an extensive lacerated wound of the calf of the leg, with loss of a portion of the gastrocnemius. The accident happened fourteen years ago; since then, the calf had become shrunken, and the heel drawn up, from muscular atrophy and contraction. Superficial ulceration of an extensive cicatrix, occupying the middle of the leg, was a constant source of irritation, aggravated and continually added to by walking and the flexion of the foot in standing. A plastic operation was not practicable. The tendo Achillis was divided subcutaneously, to diminish the tension which was provoked by its contracted condition.

Necrosis—of tibia in a young man, caused by the kick of a horse some years since. Following a custom long practised in the Hospital, the limb was tightly bandaged from the ankle to the middle of the thigh, and a strap tourniquet applied. The operation, consisting of the removal of loose sequestra, was performed with the loss of a few drops of blood from the bony cavity, and was facilitated by the bloodless condition of the soft parts.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE surgical operations last Friday, March 13th, were as follows:—

A case of Hypospadias was operated on by Dr. Cheever. The patient was a Jew child, of five years; the circumcision to which he had been submitted in infancy permitted a good inspection of the parts. The abnormal orifice into the urethra was just behind the corona glandis and involved the frænum; it admitted a probe. The normal opening of the urethra admitted a small catheter, but most of the urine usually passed by the inferior orifice.

Dr. Cheever remarked that operations for hypospadias were only exceptionally successful, but he proposed to make an experimental trial in the present case. He accordingly refreshed the edges of the orifice, and made lateral incisions obliquely backward. The edges of the wound were apposed by silk sutures and a catheter was fastened in the bladder.

Dr. Wadsworth performed Iridectomy in the case of an adult patient in whom conjunctivitis and consecutive ulcer of the cornea had resulted in anterior adhesions of the iris, but without loss of sensation to light. The case illustrated the effects of treating conjunctivitis with poultices.

Dr. Cheever presented a case of extensive sinuses of the Thigh and Buttock, the result of a neglected abscess. The patient was an adult. The sinuses opened at the outer side of the thigh in the middle third and extended upward across the nates, beneath the fascia, nearly to the sacrum. Free incisions were made.

An Ingrowing Toe-nail was removed by evulsion, and the affected side of the toe was cut away freely. Dr. Cheever remarked that this combination of methods was surely radical.

Other operations were the incision of an Ischio-Rectal Abscess, and the refreshing and re-apposition of the flaps in the stump of an amputated arm, to promote healing.

On Tuesday, March 10th, Dr. Cheever operated on a lad of fifteen years

for Congenital Phimosis. The preputial orifice was very small and micturition was painful. The outer skin was marked round with a sharp scalpel, care being taken to avoid the frænum. The mucous membrane was then slit up and trimmed with scissors, to match the skin, to which it was united by fine silk sutures. Dr. Cheever narrated the details of a death from circumcision. The infant was a Hebrew, eight days old. The operation was performed by a Rabbi, who had circumcised many hundred infants. The child had a hæmorrhagic diathesis, and bled slowly for two days, until it died. All means to cheek the hæmorrhage were ineffectual. The blood looked like a pink serum, and it scarcely coagulated.

Dr. Cheever also operated on an Acquired Phimosis, in an adult, the result of preputial chancre. The ulcer was still open. The glands in the groin were indurated. The body was covered with syphilitic roseola. The foreskin was slit up, and the edges stitched together. After the ulcer had healed, the indurated cicatrices were to be trimmed off.

On Wednesday, March 11th, Dr. Cheever Amputated the Thigh of the patient with compound fracture of the tibia involving the knee-joint, whose case was reported in the last number of the JOURNAL (page 271). During the week after the injury, it became evident that attempts to save the limb would be fraught with great peril to the patient's life, suppuration in the joint having developed. The operation was by transfixion. On opening the knee, it was found filled with pus.

Dr. Cheever also Amputated the Leg of a fireman, whose foot had been crushed by the wheel of a steam fire-engine. The laceration of the soft parts of the foot was too extensive to permit the obtaining of flaps below the lower third of the leg.

The patient with a Pistol-Shot Wound of the Knee, in whom the joint was laid open on February 20th (see JOURNAL, Feb. 26th), recently died. Vomiting, delirium, delusions, tremor (the patient having been in the habit of stimulating), were followed by typhoid stupor, sordes, a pulse of 150, chills, rapid respiration, suppuration in the ear, and death on the seventeenth day.

The autopsy revealed metastatic abscesses in the lungs, and pus in the middle chamber of the ear. The knee-joint was disorganized; the cartilages were eroded, and the cellular tissue was burrowed into by pus. The ball was found in the popliteal space, having notched the condyle of the femur, and traversed the joint.

The slight primary injury of the articulation, and the fact, ascertained by passing the finger through the counter-opening into the joint, that the articulation did not contain the ball, any foreign body, or shattered bone, had induced the attempt to save the limb by free incisions, rest, syringing and drainage. Amputation was clearly indicated after the first week, but the patient was never in a condition to survive it.

The case of Compound Fracture of the Patella, reported in the JOURNAL of December 25th, and alluded to in the number for February 26th, as convalescing, terminated fatally the second week in March. Abscesses continued to burrow up the thigh and into the calf. Free openings were made from time to time. The patient steadily declined, large bed-sores forming over the sacrum, and great emaciation ensuing. He finally died of exhaustion, with the knee-joint still open and suppurating. No autopsy was allowed.

F. W. DRAPER.

Correspondence.

THE AUTOPSY OF THE SIAMESE TWINS.

(From our regular correspondent.)

PHILADELPHIA, March 1, 1874.

THE autopsy of the Siamese Twins, anticipated and desired by medical men for the last twenty-five years, simply because of the hidden mysteries of the band of flesh, is now an accomplished fact. Living, the twins exhibit-

ed themselves for nothing, or a mere pittance. Dead, they are brought with awful secresy to the *sanctum sanctorum* of the medical men of Philadelphia, and there exposed, in all their hideous unattractiveness, to the view of only the privileged. The band, unique in its marketable value, which has so long supplied the twins with coupons, and which has excited the cupidity of many an inquisitive surgeon and anatomist, is destined never to be divided. In allowing the Philadelphia Medical Committee to bring the remains of the twins to this city, the widows of the monstrosity strictly stipulated that the band should not be cut. (Visions of more coupons! Disgusting!)

Immediately upon receiving intelligence of the death of the twins, Dr. Wm. H. Pancoast engaged himself actively in an attempt to procure permission to make a *post-mortem* examination of the bodies of the twins. To this end, a despatch containing the necessary query was sent to the Mayor of Greensboro', N. C., in the vicinity of which place the twins had been living. The Mayor replied that the matter was out of his jurisdiction. Meanwhile, Dr. Hollingsworth, latterly physician to the twins, already on his way North, reached Greensboro', saw and read the telegram. Upon reaching Philadelphia, he met Dr. Pancoast and others in conference. A letter was then written to the widows of the coveted curiosity, proposing embalmment and examination of the bodies by Dr. Pancoast. Later, because of its general interest, it was deemed advisable to make the matter a concerted affair. A hasty meeting of physicians, sparsely attended, requested Drs. Pancoast and Allen to go to North Carolina and embalm the bodies. Thus the original arrangement, although nominally emanating from the College of Physicians, had no sanction from that body. The college is, therefore, free from all responsibility concerning the preliminary movements of the commission.

After a delay of some days, Drs. Pancoast and Allen went to Mt. Airy (the place of residence of the twins), in company with Dr. Hollingsworth, taking a photographer along with them. They met the widows and their legal adviser. The result of the conference was that the Commission, in consideration of their agreement to embalm the bodies, received permission to examine the structure of the twins, but on condition that the sacred ligament should not be defaced by any incision whatever. The Commission, however, finally obtained the consent of the widows to a limited dissection of the posterior surface of the band. The above agreement, to which was added permission to remove the bodies to Philadelphia, was written and signed. The bodies were then taken from their coffin, which was enclosed in a soldered box of tin, this again in a stout box of wood, covered with planks, under a hillock of pulverized charcoal, the whole in a shallow grave, dug in the cellar of Eng's house—a multitudinous attempt at preservation, which proved successful, since the bodies were found in a well-preserved condition, although they had already been fifteen days dead. The bodies having been reduced to nudity, were held in an erect position and photographed, but unsatisfactorily, because of absence of sunshine.

Superficial examination of the bodies revealed nothing of note, save that "on the pubes of each subject the hair of the *left side* was *grey*, that of the *right side*, *black*." The bodies were then embalmed by the injection of a solution of chloride of zinc, the aorta of each individual being, as usual, the chosen point of access to the arterial system. The aortæ were found atheromatous, hence the left primitive iliacs were used instead. After embalmment, the primary incisions were extended to the band, which was then found to be anatomically complicated. The Commission, therefore, decided to defer a more intimate examination of the ligament until after removal of the bodies to Philadelphia. Arriving in Philadelphia, the remains were placed in the Mütter Museum of the College of Physicians, and were carefully locked in and guarded.

The College met, and, after a somewhat prolonged discussion, accepted the course of the Fellows who had thus far been engaged in the matter, agreed to defray the costs of the trip, and appointed a Committee, consisting of the Mütter Museum Committee and the original Commission. At the expiration of a week, a special meeting of the College of Physicians was held

in the hall of the College, for the purpose of listening to the report of the Committee. Meanwhile, during the previous week, the examination of the bodies had been extended into detail, and photographs and casts of the dead twins had been taken.

The cadaver of the twins being exposed to the view of the college, Drs. Pancoast and Allen began their report. Dr. Pancoast spoke, principally, in relation to the surgical aspect of the subject under consideration. Dr. Allen confined himself to the demonstration of the anatomical peculiarities of the twins.

The substance of Dr. Pancoast's remarks was as follows:—The duplex, symmetrical monstrosity presents a mutual attachment at the xiphoid cartilage and navel; it belongs to the third order of the class anacatadidyma (terato-anacatadidyma), and may be termed an omphaloxiphodidymus. The point of interest in the *post mortem* is the band of union between the twins. The band is four inches long, eight inches in circumference.

"In regard to the position of the hearts," said Dr. Pancoast, "we think they present toward each other, but we have not yet opened the thorax. The livers, as we have found, approximate each other, pushing through respective peritoneal openings into the band. My colleague and myself, one placing a hand in the peritoneal cavity of Chang, the other placing his hand in the corresponding cavity of Eng, and forcing our fingers into the band, find they meet each other in the median line of the lower portion of the band, but with layers of peritoneum between them, thus proving the independence of each peritoneal cavity. In turning up the flaps, consisting of the anterior walls of the abdomens, we see the hypogastric arteries running in each body upward into the band, where we lose them, but think they may pass through the umbilicus in the middle of the anterior surface of the band. We have not been able to determine as to the existence of the two umbilical veins, nor as to the structure of the umbilical cord, nor the character of the placenta. We find that the ensiform cartilage of each body is prolonged into, and united in, the centre of the band, but without a true joint. Motion in the band is due to the elasticity of the ensiform appendices. In regard to the vascular connection in the band, we have not perfected our study; but, in injecting colored plaster into the portal circulation of Chang, we have observed that it flowed through the vessels of the upper portion of the band into the portal vessels of Eng. The surgical anatomy, then, of the band comprises skin, fascia, two separate peritoneal pouches which meet in the centre, the large single pouch, the vascular connection, more or less perfect, between the portal circulations, and, finally, the vestiges of the hypogastric arteries in the lower portion of the band. Thus the main difficulty in any operation for severing the ligament would probably relate to the peritoneal processes and the portal circulation."

Dr. Pancoast further considered the possible result of such an operation during life, not hazarding any opinion of his own, but mentioning the effect produced upon the twins by the European experiments with the ligature, with which every one is familiar. The twins fainted, as you will remember. In closing his remarks, the gentleman alluded to some of the personal characteristics of the twins, to which, since I am forced into a digression, I may here fittingly add the following items from other sources:—Eng was the stronger physically; Chang, mentally. Chang was irritable; Eng, good-natured. In their appetites, they were analogous to Jack and Mrs. Spratt. Chang became hemiplegic; Eng remained healthy. Chang was a hard drinker; Eng comparatively temperate, and never feeling the debauches of his brother. If one had fever, his mate did not therefore sicken, and the respective pulses beat on, one twenty strokes, more or less, in advance of the other. A fair proof of independent circulation was thus afforded. Both were liable to so-called bilious attacks; but each twin suffered independently of the other, which is deemed singular in view of the close connection which existed between their livers.—*(Editor Medical Times.)*

The twins are called Siamese, but they were really Chinese, their father being a Chinaman and their mother the daughter of a Chinese father and a Siamese mother. This would make them about three quarters Chinese. During

the infancy of the twins, the ligament of union was so short as to keep them face to face, but it lengthened as they grew. Their mother recognized their separate individuality, and also discovered that common sensibility existed only in the centre of the band. On either side of the median line, touch was perceived only by the twin of that side. Their introduction into Europe and the Western Continent came about through a Scotch merchant, who saw the twins swimming in their native river; remarking the exact parallelism of their movements, he examined them, and discovering the surprising nature of their structure, immediately bethought himself of the benefit which might be derived from exhibiting the twins. After much diplomacy, he finally succeeded in gaining the consent of their parents to carry them to Europe.

This digression being terminated, we may return to Dr. Allen's demonstration of the minute anatomy of the twins, which I will give as synoptically as is possible:—The ensiform union of the twins, mentioned by Dr. Pancoast, is probably of the character of a synchondrosis, with a median bursa-like sac. Neither ensiform cartilage is ossified. *Three* pouches, two from the body of Chang, one from Eng's body, project into the bond of union, one above the other. The two lower pouches are peritoneal, and originate one in the body of each twin. They suggest that they have had intimate connection with the umbilical veins of the funis. The third and upper pouch is prolonged from Chang's abdomen, and, crossing the bond, reaches the peritoneal cavity of Eng, but is not continuous with it. Extending up into this pouch, is a process which suggested the possibility of a transit of hepatic vessels. A colored plaster-injection was accordingly thrown into a tributary of the portal vein of Chang. It was immediately observed that the fluid passed into the liver of Eng.

Dr. Allen's hypothesis that the bond of union, by which the injection passed, was the true hepatic tract, has since been verified by a more extended dissection, which showed that the tract was liver tissue uniting the two livers of the twins. For, when the livers were removed and placed upon the table, they formed one mass. It was further found that, from the body of Eng, there proceeded an hepatic pouch similar to that already described as being prolonged from the abdominal cavity of Chang. So that the bond of union contained four pouches instead of three, as well as true hepatic tissue. It ought to be explained that all the pouches were of nearly equal length, and that they found space in the bond of union by overlapping each other, just as do fingers of the right hand when they are slipped between the fingers of the left.

It was also found that Chang's heart inclined to the right side of his body; that Eng's heart inclined towards the left; hence, that the apices of the two organs did present towards each other, as had been supposed. Inversely, Chang's liver was normally situated, while Eng's was placed principally on the left of the median line of his body. Chang's half of the ligament is far less well nourished than is Eng's half. Chang, being an invalid, possessed less strength and less tissue than his brother. This distinction is clearly marked by the two halves of the band, thus furnishing another proof that there was not a very intimate connection of vessels between the two.

I cannot learn that any decided opinion exists as to what would have been the probable effects of dividing the ligament during life. Cutting the pouches would probably not have exposed the twins to greater hazards than those to which women are liable in the operation for ovariotomy or Cæsarean section. Whether the division of the hepatic bridge would have been fatal is a mooted question. If, however, immediately after Chang's death, a cool, practical surgeon had been at hand and had cut the ligament well toward the body of the dead twin, it seems possible, if not probable, that Eng might have been saved. For, previous to the effects upon Eng of the nervous shock caused by his brother's death and his embarrassing situation, before the undoubtedly bad results of such passage of blood to Eng from Chang's body as occurred by means of the hepatic circulation, Chang's body might have been considered a huge pediculated polyp, and might have been extirpated with safety to Eng. At any rate, I wish a surgeon might have made the experiment.

In regard to the cost of the *post mortem*, the College of Physicians has incurred merely the expenses of the commission to and from North Carolina, the costs of the plaster casts and photographs, and of the transfer of the bodies to Philadelphia. The entire amount expended will probably not exceed five hundred dollars. The widows of the twins considered themselves remunerated for their unselfishness by the embalming of the bodies of their husbands. The report that $10,000 would be the cost of the autopsy was simply an *on dit.*

It is said that the remains of the twins will now *be carried through the States on exhibition;* that the loving widows are filled with a burning desire to make the twins profitable even after death; that, however, strenuous opposition to this delightful and savory plan has arisen on the part of an invalid daughter of one of the brothers. There may yet be opportunity in Boston to gaze upon the forbidding, shrivelled remnants of Chang and Eng.

UNGENANNT.

LETTER FROM DR. CHARLES KIDD, OF LONDON.

LONDON, February 10, 1874.

MESSRS. EDITORS,—In the JOURNAL of October 9th, I find you accuse me of an "inexcusable blunder" in referring to 41 deaths "inquired into" at Boston, &c.; now if the writer had taken the trouble to inform himself on the point, he would have seen that, many years ago, I made the exact distinction he does now, the blunder being in reality his and that of our *London Medical Record*, which eagerly grasps at any sensationalism to uphold ether and misrepresent me; the very foolish inquest held lately in America is a good commentary on this mean and miserable method of treating scientific questions. Dublin differs from Bigelow and Bigelow from Dublin; my friend Jonathan Hutchinson from S. G. W. No matter, in fact, how we bolster up ether and give dishonest, one-sided paragraphs, as in the *Record*, to say there have been no deaths from ether; no matter how we make it a party question like alcohol in disease, baby farming, or contagious diseases acts; no matter how we mislead the profession, still the natural facts remain "to plague the inventor" of the sensationalisms.

My views on ether are well known. I have always said it is in a small degree safer than chloroform (see *Rankin*, 1873). I examined with particular care this report of the Boston Committee. I asked in vain of the *Record* to have a reference made to it. As a fact, the late Dr. Murray really knew nothing at all about the matter, though placed as a high authority on ether and chloroform in that periodical. *Per varios casus*, through many difficulties, the honest men have had to contend with error, but it is a pity to find your excellent JOURNAL joining the mere wind-bags and sensationalizers.

I am, &c., CHARLES KIDD, M.D.

P. S.—Science, we may be assured, is not much advanced by suppression of facts, or pedantic journals that allow of no controversy except it be like the tower of Pisa, leaning to one side. In these differences of opinion, maintained by argument, as to the safety of ether, there has been in America a national, or shall we say gnome-like, facility of evading the hard facts and truth of the case, together with a ghoul-like pleasure in prejudice as to chloroform; there has been here a rude and not always brave treatment of the disputants: two voices, a forward one to speak well, and a backward one, to speak ill of those who do not agree with the errors of one or two specialists in Dublin and London.

I think Dr. Curtis's idea is about the worst of all, that, after we have produced this confusion of optimists and pessimists, as he styles it, we are to leave it to the *public* to settle it: in other words, coroners' juries and that section of the community which would abolish vaccination, or the public that loves every kind of advertised quackery. As well ask the public to settle the question of pyæmia, our other *bête noir* now in London journals, and for reasons not dissimilar; the truth will come in time, like our rehabilitated ministry after a new election.

Medical Miscellany.

SUBSCRIBERS will find a statement of their accounts enclosed in the JOURNAL for this week. Early remittances are requested, and receipts of payment will be acknowledged by change of date under the address printed on each number.

LOTION FOR FŒTID FEET.—The *Union Médicale*, January 27, recommends permanganate of potash, fifteen parts, distilled water, 1000 parts, for this complaint. The feet are to be washed twice a day with the lotion, and, having been carefully dried, are to be powdered either with potato-starch or lycopodium.

PECULIAR TWINS.—"Two women children, perfectly made, joined at the lower part of their bellies, and every part as perfect as two bodies, and only one payre of legs coming fort, on one side from the middle, where they were joined. It was alive twenty-four hours, and cried as all hopefull children do; but, being showed to too much people, was killed."—*Pepys's Diary*, 1667.

AURAL VERTIGO.—At a recent meeting of the Surgical Society of Ireland, Mr. Swanzy narrated three typical cases of the affection referred to by Trousseau under the name of vertigo *ab aurâ læsâ*. The symptoms of vertigo in these cases were due, Mr. Swanzy thought, to irritation of the semicircular canals, from increased pressure in the internal ear, produced by the displaced membrana tympani pushing the stapes inwards. The vertigo in these cases is relieved by the inflation of the middle ear, by which means the membrana tympani is mechanically restored to its normal position, and the intra-auricular pressure relieved.—*Irish Hospital Gazette.*

REMOVAL OF FIVE INCHES OF THE SCIATIC NERVE.—At the Roosevelt Hospital, a female patient was recently admitted on account of a tumor, which was situated in the posterior part of the left thigh. When cut down upon, the growth was found to be intimately connected with the sciatic nerve, and to such an extent as to preclude all possibility of its extirpation without completely removing a large portion of the nerve. Accordingly, about five inches of the nerve were removed. The patient was discharged from the hospital within three weeks, with but slight impairment of motion and sensation.—*New York Medical Record.*

THE LOCAL TREATMENT OF CAVITIES IN THE LUNGS.—The *Medical Times and Gazette*, Feb. 15, 1874, states that a novel method of treating pulmonary cavities in phthisis and dilatation of the bronchi was lately submitted by Professor Mosler, of Griefswald, to the notice of the members of the German Association, at their annual meeting at Wiesbaden. It consists in injecting certain drugs through the wall of the chest into superficial caverns, and leaving the canula in, so as to repeat the operation frequently at discretion. Mosler went even farther; he made an incision into the wall of the cavity, inserted a silver tube or elastic catheter, and succeeded in drawing away the secretion, and in disinfecting the pyogenic walls by means of a weak carbolic acid lotion. No difficulty was experienced in the operation, and the condition of the patient was improved; the cough became less troublesome, and the febrile symptoms apparently moderated.

Mosler's patient was still under treatment at the time of his communication, so that it was impossible to tell what the final result would be, and whether granulation and cicatrization would ensue. One point seemed settled, as far as it could be by experiments, and this was that the local treatment of pulmonary cavities is undoubtedly practicable, and that the lung is more tolerant of external interference than has generally been believed. At the same time, the risk of pneumo-thorax, hæmorrhage and pyæmia must not be forgotten.

Amyl Colloid in Herpes Zoster.—Dr. Morgan, of Litchfield, calls attention to the great efficacy of "amyl colloid" in removing the pain attendant upon shingles. Three or four coats of the colloid should be painted around the clusters of the eruption, as soon as the pain sets in, and continued twice daily as long as required. In severe cases, the addition of three or four grains of morphia to each drachm of the colloid will be found advantageous. It must not be applied over the eruption.—*British Medical Journal*, January 31, 1874.

Mass of Scybala Mistaken for an Ovarian Tumor.—Dr. John Hall Davis reports a case in which a mass of scybala, exceeding in bulk a child's head at mature delivery, and giving rise to menorrhagia, occupied the left iliac fossa, and had been mistaken by a physician for an ovarian tumor. Dr. Davis appears to have hit at once upon a correct diagnosis by simply pressing upon the tumor, and thus demonstrating that the surface of the mass retained the impression of the fingers.—*Obstetrical Journal*, January, 1874.

Medical and Surgical History of the War.—Of the 5,000 copies which were printed of the first part of this work, 1,000 were distributed to Senators, 2,000 to Representatives, and 1,868 copies were sent to be issued by the Surgeon General's Office. Concerning this distribution, the *New York Medical Record* pertinently remarks:—

"It can be seen from this statement what a small proportion of these volumes, so highly prized by the profession, have fallen to their share. With the Medical and Surgical History of the Rebellion, the interest manifested throughout the whole profession amounted to an enthusiasm worthy of a national work in the hands of the first medical investigators of the country. No work published in America has been more eagerly sought on account of its intrinsic value than this one, and every contributor, at least, rightly believed that he had a claim to a copy, and this belief was strengthened into a prospective certainty when it became known that the distribution was to be entrusted to the Surgeon General. In the figures before us, we have the best explanation why the supply has been so limited as to leave the vast majority of those entitled to the work without it.

"We should like to know what has become of the three thousand copies appropriated by the legislators, what were the measures adopted to secure their faithful distribution to such of their constituents as would value the books, and what proportion drifted into the hands of those who helped to make the work what it is by their valuable experiences upon the battle-field and in the general hospitals."

Mortality in Massachusetts.—*Deaths in fifteen Cities and Towns for the week ending March 7*, 1874.

Boston, 119; Worcester, 14; Lowell, 30; Chelsea, 7; Salem, 7; Lawrence, 14; Springfield, 4; Lynn, 8; Fitchburg, 5; Taunton, 6; Newburyport, 6; Somerville, 8; Fall River, 15; Haverhill, 3; Holyoke, 2. Total, 248.

Prevalent Diseases.—Consumption, 50; pneumonia, 31; scarlet fever, 17.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, March 14th, 140. Males, 69; females, 71. Accident, 2; abscess, 1; apoplexy, 3; aneurism, 1; bronchitis, 8; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 6; cancer, 5; consumption, 22; convulsions, 7; croup, 1; debility, 3; diarrhœa, 1; dropsy of the brain, 3; dysentery, 1; epilepsy, 1; erysipelas, 2; scarlet fever, 9; disease of the hip, 1; disease of the heart, 7; homicide, 1; intemperance, 2; disease of the liver, 1; congestion of the lungs, 1; inflammation of the lungs, 13; marasmus, 5; old age, 9; stricture of the œsophagus, 1; neuralgia, 1; paralysis, 2; pleurisy, 1; premature birth, 1; peritonitis, 1; puerperal disease, 1; pyæmia, 3; rheumatism, 1; smallpox, 1; suicide, 1; ulcer of the stomach, 1; spina bifida, 1; tumor, 1; whooping cough, 1; unknown, 1.

Under 5 years of age, 43; between 5 and 20 years, 15; between 20 and 40 years, 27; between 40 and 60 years, 27; over 60 years, 28. Born in the United States, 97; Ireland 30; other places, 13.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XC.] THURSDAY, MARCH 26, 1874. [NO. 13.

Original Communications.

EMBOLUS IN LEFT MIDDLE CEREBRAL ARTERY.

Reported to the Boston Society for Medical Improvement.

By G. H. LYMAN, M.D.

I. W. K., aged 23, born in England, by occupation a lead glazier, entered the City Hospital December 17, 1873, complaining of rheumatism. He had an attack of typhoid fever ten years ago, from which time his health had been good until three weeks since, when, after exposure to cold, he had slight rigors, followed by headache, loss of appetite, and rheumatic pains, especially in the right elbow, left shoulder and lumbar region. These pains still continue, except in the elbow. He thinks his breathing has been somewhat embarrassed from the beginning. He has, also, a slight cough. His countenance anæmic, but the body is well nourished, and the skin warm; the appetite is poor, the tongue is coated, the bowels are regular, and micturition is free. Temperature 101°; pulse 108; respiration 32. Auscultation and percussion revealed nothing abnormal about the lungs, but a decided systolic murmur at the apex of the heart, and a double murmur over the aortic valves.

The following evening, the 18th, the right arm and, to a slight degree, the lower left side of the face, also, became suddenly paralyzed; the tongue protruded very slightly to the left, and *articulate speech* was gone. *The intelligence remained clear;* he understood what was said to him, but he could only utter the one word "yes" in reply to all questions. He remained in very much this condition until the morning of the 20th, when the whole right side of the body was completely paralyzed, and death ensued at 11, A.M.

With much difficulty, a *post-mortem* examination was obtained, fourteen days subsequently, confirming the previous diagnosis. The weather being very cold, the body was perfectly preserved. The following notes are given by Dr. Bolles, who made the examination: "Twenty-four ounces of ice and watery fluid were found in the right, and twelve in the left pleura; one ounce in the pericardium. The lungs were œdematous, without adhesions. The heart was rather large, the valves of the right side in good order, the cavities containing soft clots; the mitral valve was normal; a large, soft clot was in the left ventricle. At the junction of two of the aortic folds was a large, deep, ragged ulceration, perforating both valves with openings sufficiently large for the passage of a pocket pencil. Attached to these openings were ragged bits of fibrin, some of which easily fell away, others being firmly adherent. The spleen weighed one pound and a quarter. A white, firm plug filled about half an inch of the left

carotid artery, partly within, but mostly above, the carotid canal, completely obstructing the middle cerebral artery to a point a little beyond the posterior communicating artery. The middle cerebral was more full of blood than its fellow of the opposite side, and the whole white substance of the left hemisphere was markedly congested, being several shades more pink than the other side. No fluid was found in either ventricle; the surfaces of both were decomposing."

The subject of embolism and thrombosis is one of great interest, and, although abroad it has been investigated by many observers, it has not received such general attention from the profession in this country as its importance deserves. Without attempting to discuss all its pathological bearings, it may not be out of place to add to the above report a few clinical remarks in connection with its occurrence in the brain, and especially with reference to the diagnosis.

In 1872,* I reported to the Society a case similar to the one now given, and in the English journals, especially, a large number have been reported since attention was directed to the matter by Dr. Kirkes, in 1852,† in a great majority of which the connection between the symptoms during life and the lesion discovered *post mortem* was almost absolute.

The differential diagnosis of cerebral lesions is still sufficiently obscure, and, until the exact function of each part of the brain is better determined, it must necessarily remain so; still, great progress has been made in this direction since the days of Gall and Spurzheim.

In 1836, Dax, of Montpellier, and, still later, Broca, in 1861, published papers tending to prove that the faculty of speech was localized in one of the convolutions at the base of the anterior left lobe;‡ and, though this theory has been much criticized, the preponderance of testimony accumulated by more recent observers, supported by a large number of cases, would seem to strengthen the conclusions at which they arrived, and that any cause interfering with the nutrition of this particular portion of the brain would result in aphasia and hemiplegia of the left side. At all events, it is tolerably certain that, these two symptoms existing, careful *post-mortem* examination reveals a lesion of this part, however much other portions of the cerebral tissues may be involved at the same time.

Obstruction of one or more of the cerebral vessels, with consequent suspension of function, and rapid softening of the parts dependent upon the same for nutrition, is, as is well known, of frequent occurrence, and in presence of any particular case the questions naturally arise, what causes the obstruction, and are there any special symptoms, from which we may localize the lesion? The circulation may be impeded by something *within* the vessels, as emboli, thromboses, aneurisms, atheromata, arteritis, or by pressure upon the vessels from *without*, as morbid growths, external injuries, apoplectic effusions.

The terms embolus and thrombosis are often carelessly used, as if practically the same thing, whereas the former really means a fibrinous concretion, originating in some distant part, as the heart or lungs, from which it is moved on by the circulation until it reaches some

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* Boston Medical and Surgical Journal, vol. lxxxvi. p. 238.

† Medico-Chirurgical Transactions, vol. xxxv.

‡ Dax located this faculty in the left anterior lobe, but Broca goes still farther, and confines it to the posterior third of the inferior frontal convolution of the left anterior lobe.

vessel so small in calibre as to arrest it; while the latter means a local separation of fibrin from the blood, due to some interruption or slowing of the current, as in aneurism, atheromatous degeneration, local arteritis, or to a contraction of the calibre by external pressure from any of the causes just mentioned. This defibrination is especially apt to take place in that state of the blood termed hyperinosis,* in which the fibrin is relatively in excess, and which exists in the puerperal state, syphilis, typhus fever, inflammations of serous membranes, and in persons reduced by dissipation, want, and other causes. The symptoms resulting from an embolus lodging in the carotid canal or middle cerebral artery of the left side, especially if extending to the posterior communicating artery, beyond which there is no arterial anastomosis, are hemiplegia of the left side and *the loss of articulate speech without the loss of intelligence.* These symptoms occur suddenly, or with very little warning; some pulmonary or cardiac complication is usually present; there is generally no previous history or suspicion of cerebral disturbance, as in morbid growths, ossification of superficial arteries, or atheromatous degeneration.

On the other hand, the causes inducing the obliteration of this vessel by a thrombus are usually of much less rapid development, the calibre of the vessel being gradually diminished, either by the pressure from without, incident to the morbid product, whatever it may be, or by the roughened surface within, which a local arteritis or atheromatous degeneration would produce; all of them acting by checking the rapidity of the circulation, inducing a separation and deposit of fibrin so gradually as not to deprive the parts involved of their nutrition at once. In fact, in many of the cases reported, the deposit has been so slow as to allow of the dilatation of the vessel to a degree sufficient for a partial supply of nutrition for a long time. In such cases, the aphasia has been less complete, and in some, ultimate recovery has taken place. In most cases of apoplexy, the premonitory symptoms, and the loss of consciousness, the character of the respiration, &c., are sufficiently characteristic; and, although cases may doubtless occur, in which the lesion is limited to this particular locality, and even in subjects suffering from cardiac or pulmonary disease, with a development so slow and circumscribed that hemiplegia and aphasia may precede the loss of intelligence, such coincidence, it must be admitted, is very unlikely to occur to embarrass the diagnosis.†

A New Treatment of Chronic Cystitis.—Purdon reports a case of chronic cystitis cured, after failure of all the usual modes of treatment, by injections of tepid, recently-passed, normal *urine*, repeated morning and evening for three weeks, the bladder being washed out with water before each injection. This somewhat original treatment was suggested by Dr. Clemens, of Frankfort *(Deutsche Klinik*, No. 7), who instituted it four years ago, and now expresses great satisfaction with the results thereby obtained. In his cases, also, the bladder was thoroughly emptied, and then washed out with tepid distilled water before each injection of urine.—*Dublin Quarterly Journal of Medical Science.*

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* Wharton Jones. Guy's Hospital Reports, 1851. Dickinson, St. George's Hospital Reports, vol. i., 1866.

† To those interested in this matter, an interesting article on Aphasia and Agraphia, by Dr. William Ogle, Lecturer on Physiology at St. George's Medical School, may be found in the second volume of St. George's Hospital Reports for 1867.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. Edes, M.D.

[Concluded from p. 285.]

Pseudaconitin.—R. Boehm *(Archiv für Experimentelle Pathologie und Pharmakologie,* I. Band, 6 Heft, p. 385) publishes the results of his investigations upon the alkaloid of aconitum ferox, which he calls pseudaconitin. He states, however, that the only *qualitative* difference between this alkaloid and that of aconitum napellus (the officinal aconite) is in its local actions upon the mucous membrane and the skin. Schroff and others have, however, determined that even the German aconitia may have this local action, while many other investigators have found that the "German aconitia" is much less active than the French or English. The fact of local burning sensations and numbness following the use of our officinal tincture of aconite, when of good quality, is well known; from all which it would appear that the so-called "German aconitia" is a diluted or enfeebled alkaloid, and that the aconitum ferox is a better material for the manufacture of an alkaloid representing the physiological activity of either species of aconite (whether called pseudaconitia or aconitia) than aconitum napellus. (This latter statement is made in the U. S. Dispensatory.)

The proportion between the activity of pseudaconitin and "German aconitia" is fixed by Boehm as seventeen to one.

Croton Chloral Hydrate.—Dr. Oscar Liebreich speaks of croton chloral *(British Medical Journal).* When chlorine gas acts on aldehyde, croton chloral is formed, which is, chemically, the chlorated aldehyde of crotonic acid, though having nothing to do with croton oil.* It differs in its outward appearance from chloral hydrate by being dissolved with difficulty in water and by crystallizing in small glittering tablets. A drachm of this substance, dissolved in water and introduced into the stomach, produces, in the course of from fifteen to twenty minutes, a deep sleep, accompanied by anæsthesia of the head; whilst the eyeball has lost its irritability and the nervus trigeminus shows no reaction on being irritated, the tone of the muscles remains unaltered.

Liebreich has experimented with this remedy on maniacs during an attack of mania. They remained quietly sitting on their chairs in a deep sleep, their pulse and respiration being unchanged for two whole hours together. If anæsthesia had reached so high a degree in consequence of the use of hydrate of chloral, the patients would have dropped from their chairs, and both their pulse and respiration would have been considerably retarded. He has seen croton chloral acting in the same way on healthy individuals. In some cases of tic douloureux, pain ceases before sleep sets in. He has never observed any ununfavorable effects of croton chloral on the stomach or any other organ.

The indications for its use are to be found:—

1. In cases where hydrate of chloral is inapplicable on account of heart disease.

* This statement does not agree with the lucid description of the process given in the Journal, Vol. cx. No. 11, p. 276.

2. In cases of neuralgia of the trigeminus.

3. In cases where very large doses of chloral are necessary to produce sleep. He then recommends the addition of croton chloral to hydrate of chloral.

It is not the first but the second product of decomposition of croton chloral which is brought into action, on account of the first being too rapidly destroyed in the blood. Croton chloral, when subjected to the influence of an alkali, first forms allyl chloroform, a trichlorated body, which is rapidly decomposed into a bichlorated substance called bichlorallylene. Both chloroform (terchloride of formyl) and other trichlorated substances act in their first stage on the brain ; in the second, on the spinal cord ; and, in the third, on the heart. The retardation of respiration is to be explained by the agency of these substances on the heart. Bichlorated substances (e. g., bichloride of methylene) act differently. Even if the circulation of blood in an animal have been stopped by this latter agent for one minute, life may be restored by artificial respiration, which is impossible whenever trichlorated substances have produced this effect, in which case the muscles of the heart remain paralyzed. In animals poisoned by croton chloral to such a degree that both circulation and respiration are stopped entirely, artificial respiration is able to restore the action of the heart immediately, and the life of the animal may thus be saved. Bichlorallylene, inhaled by the lungs, produces the same effect on animals as croton chloral. Thus these bichlorated substances act on the brain, spinal cord and medulla oblongata, but not on the heart, which explains the fact that both respiration and circulation remain unaltered in medicinal doses.

Elimination of Metallic Drugs.—Mayençon and Bergeret *(Journal de l'Anatomie et de la Physiologie,* 1873, pp. 81, 243, 390), by using a little galvanic battery, consisting of an iron nail or a strip of zinc soldered to a platinum wire, which reduces the metal from an acidulated solution, have made some experiments upon the distribution in the tissues, and the elimination, of silver, mercury and bismuth.

Salts of silver are absorbed and rapidly diffused into all parts of the organism. Chloride of silver is more easily absorbed than nitrate. Elimination takes place principally by the kidney and intestine. Elimination by the kidney lasts fifteen days. Iodide of potash seems to favor its expulsion.

Mercury and its salts are absorbed by the skin as well as by the stomach. Of that which is absorbed, the larger part is immediately eliminated, while the smaller impregnates the tissues, to be only slowly eliminated. This elimination is always prompt if the impregnation has not been rendered too profound by long-continued use. It takes place by all the humors. Iodide of potassium has a marked effect in disembarrassing the organism of the mercury which it has fixed. The bichloride, in small doses, is well borne, and increases the appetite. It produces increased flow through the kidney, then the liver, then the buccal mucous membrane, and provokes bilious supersecretion, which may be in excess of what is necessary to dissolve nitrogenous material, thus giving rise to bilious diarrhœa.

Subnitrate of bismuth is promptly absorbed and impregnates the tissues deeply. It is slowly eliminated. It seems to augment the plasticity of the blood.

In connection with the observations upon corrosive sublimate just quoted, which seem to support the older views of the action of mercurials as cholagogues, the experiments of Röhrig on the secretion of the bile (*Wiener Medizinische Jahrbücher*, 1873, 240; *Medical Times and Gazette*, July 19, 1873; and *Centralblatt*, 1874, p. 51) are of much interest. He states that the secretion of the bile is dependent, as to its quantity, upon the amount of blood in the abdominal viscera, and especially upon the flow of portal blood. Injection of water into the intestinal canal increases the secretion rapidly, and more than injection into the veins. Mechanical irritation of the mucous membrane of the digestive tract, as well as electrical excitation of the liver itself, provokes no increase, while digestion as well as purgatives do so. Croton oil, colocynth, jalap, aloes, rhubarb, senna, sulphate of magnesia, calomel and castor oil acted in the order mentioned with decreasing intensity. Increased biliary flow was *preceded* by hyperæmia of the intestine, and *followed, never preceded*, by diarrhœa.

Large doses of calomel (twenty grains for a dog) are seldom able to excite the flow of bile if it is previously stopped; but if secretion is simply diminished it may be increased by the administration of the drug.

Poisonous Properties of the Silver Salts.—Rouget (*Archives de Physiologie, normal et pathologique*, 1873, 333; *Centralblatt*, 1874, p. 60) has experimented with silver salts on many classes of animals, from insects to mammalia. No animal possesses immunity from the poison. The most marked action was upon the respiration, which was always weakened and irregular. Dogs were subject to asthmatic attacks, with copious secretion, which were followed by death from œdema of the lungs. The respiration always ceased before the circulation was checked. The affections of mobility, muscular twitchings, convulsions and rigidity were unconnected with the derangement of the respiratory function. He found no alterations in the blood, and consequently cannot agree with other observers in attributing to them the poisonous action, but accounts for it by some undescribed changes in the brain and spinal cord.

Colchicum Poisoning.—Several cases of poisoning by wine of colchicum seeds, of which seven were fatal, are reported by Dr. Major in the *Canada Medical and Surgical Journal* (December, 1873). No autopsies were made. In the fatal cases, the quantity taken was from six or eight to fourteen or more ounces. The symptoms, which are carefully and minutely described in the original, consisted in vomiting, purging, rapid (135 to 145 in every bad case) and feeble, irregular pulse, cramps in the limbs and cholera-like collapse.

Koumiss.—This new medicine, formerly known as the national drink of the Kirghizes, has been extensively employed during the past year by Dr. Stahlberg as a specific against lung disease. The cases which have proved most suited to the koumiss treatment are those cases of chronic phthisis, in which there is great wasting of the body, and where the indication is to increase the weight of the patient, and thereby also the general strength. The quantity for an adult to begin with is two half bottles *per diem*, increasing this dose, by half a bottle each day, until the measure of three or four bottles be reached; indeed, in order to obtain effectual results from koumiss, the patient should live almost exclusively upon it.—*Irish Hospital Gazette.*

Translation.

DECUSSATION OF THE OPTIC NERVES, AND HEMIOPIA.

By Dr. E. Mandelstamm, of Kiew.

Translated from Graefe's Archiv für Ophthalmologie, 1873, by Henry W. Williams, A.M., M.D. Harv., Professor of Ophthalmology in Harvard University.

Clinical observations have long since led me to the conviction that the theory of *semi-decussation* at the chiasma, or crossing of half of each optic nerve to the opposite side, as accepted by almost all ophthalmologists and anatomists, does not correspond with pathological facts. It especially fails to explain, satisfactorily, those instances of hemiopia where we have a healthy condition of the inner, and an amaurotic state of the outer half of the retina, with limitation of the visual field towards the nasal side, in both eyes, occurring in cases of neuro-retinitis of central origin (resulting from inflammatory processes or morbid growths in the brain). Within a few years, I have observed four marked cases, probably caused by a tumor in the median line, at the base of the brain, or higher in its substance, which could not be explained by semi-decussation. Wheresoever the pathological alteration may have its seat, in these and in like cases, it could not, if semi-decussation existed, destroy the function of merely that fasciculus from the optic tract which was distributed to the outer half of the retina. And that we have to do with an injury of well-defined nerve fibres is proved by the marked impairment of the retinal function in one half of its extent. According to the theory of J. Müller, disease of the median line of the brain, whether before or behind the chiasma, would affect the bundles of nerve fibres which crossed each other and were distributed to the *inner* half of the retina. These and other observations, where tumefaction in one cerebral hemisphere had caused complete amaurosis of the opposite eye, led me to new examination of the already published work of Biesiadecki, whose statement, that the optic nerves of men and animals cross in totality at the chiasma, has had few supporters, though Dr. Pawlowsky confirmed it in 1869.

I therefore undertook researches, in the laboratories of Professors Brücke and Meynert, in Vienna, with the view, first, of investigating the anatomy of the chiasma in the human subject; and, secondly, of examining the physiological evidence of total or of semi-decussation in animals. In determining the anatomical questions, I made use of double methods, by unravelling the nerve fibres, and by horizontal sections through the chiasma after it had been placed in hardening solutions. The fresh chiasma was kept for two or three days in chromic acid, and afterward, for twenty-four hours, in absolute alcohol. It was then treated with a strong potash solution, and the nerve fibres were traced, while bathed in this solution, by the aid of artificial light concentrated by means of a lens. The potash destroyed the connective tissue, leaving the nerve fibres nearly intact. With a little practice and the use of fine forceps, the fibres may be isolated and followed, and in a well-preserved chiasma their direction can be very clearly defined.

I will now state, in advance, that I have been able to confirm, in all essential points, the statements of Biesiadecki and Pawlowsky, and I am convinced that the optic nerves in the human subject completely cross each other at the chiasma.

Beginning to trace the fibres at the upper surface of the chiasma, after removing the pia mater, I found fibres arising from the cerebral masses which press upon the posterior angle of the chiasma, distinguished by their gray color and radiating in fan shape over the chiasma as far as its anterior angle, thence bending around its inferior surface. These and other complex fasciculi may be easily lifted off from the chiasma after treatment with the potash solution, and the upper surface of the chiasma proper is exposed. Here, I always found all fibres of one nervus opticus crossing those of the other; the nearer the anterior angle of the chiasma, the more abrupt the decussation. Those nearest the periphery cross near the posterior angle. The outer fasciculi of the upper surface run towards the outer angle, and thence bend towards the under surface, where they cross each other.

The superficial layers having been removed from the upper surface, another mode of crossing is to be observed in the central layers of the chiasma. The fibres of the optic nerves describe a greater or less bend, and those of the inner side, nearest the anterior angle, pass along this angle to the opposite side, whilst the outer fibres pass along the outer towards the posterior angle, where they cross. Frequently, their incurvations are very remarkable, and it is only by a careful tracing of the fibres that their true relations can be demonstrated.

Another series of investigations was made upon rabbits, by division of the optic tract, with the object of observing the subsequent progressive atrophy of the retina by means of the ophthalmoscope. The fibres of the optic nerve are prolonged into the retina in rabbits, without losing their double contour, and alterations of their structure may, therefore, be clearly observed at a very early period. At the end of the fourth week after removal of a portion of the anterior quadrigemina and the optic thalamus of one hemisphere, the ophthalmoscope revealed very marked changes. The retinal fibres in the eye of the opposite side to that operated on had shrunken in a marked degree; the margin around the optic papilla was of a dirty gray color, and the choroid was more than normally visible through the atrophied retina. The eye on the same side with the structures operated on remained healthy.

Similar experiments on rabbits, which were afterwards killed, resulted in the same ophthalmoscopic appearances during life, and *post-mortem* examination revealed corresponding atrophy of the central parts implicated in the operation, and of the optic nerve and retina of the opposite side.

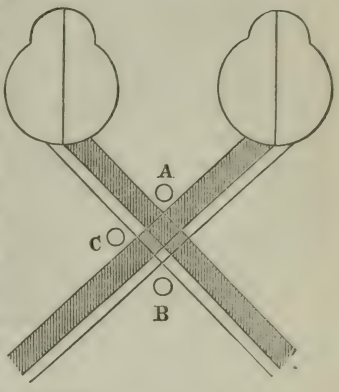
Adding to these results the fact that horizontal sections of the chiasma in rabbits clearly show a total decussation, the evidence seems to be complete.

The question now arises, how will the retina be affected, under these conditions of total nerve crossing, by circumscribed, central, structural changes; and whether clinical phenomena coincide with the above-described anatomico-physiological conformations.

The drawing on the following page, representing the crossing of the nerves and their distribution to the two eyes, shows:—

1. That in case of a diseased condition (from pressure or from implication in morbid processes) in the median line, in front of the chiasma, as at (A), only one fasciculus of the nerves, that which is distributed to the *inner* half of the retina, has its function destroyed; there results a hemiopia with limitation of the visual field at the outer or temporal side.

2. That a diseased space behind the chiasma, in the median line, as at (B), at the base of the brain, or higher in its substance, must affect those nerve fibres which go to the *outer* half of the retina, producing hemiopia with limitation of the field towards the nasal side. Thus the total crossing of the optic nerves allows of an easy solution of this hitherto unexplained hemiopia.



3. That disease seated towards the outer angle of the chiasma, as at (C), somewhere along the fissure of Sylvius, must give rise to lateral hemiopia, towards the right or left side, because it affects at the same time a portion of the nerve which crosses *at* the chiasma to the opposite eye and a part of the nerve crossing *from* the chiasma towards the eye on the same side with the disease.

4. That disease of one hemisphere, affecting the thalamus, quadrigemina or optic tract, must cause amaurosis of the opposite eye, more or less complete, according to the degree of the affection.

All hitherto observed pathological phenomena completely confirm these anatomico-physiological propositions, and the acceptance of the doctrine of a total crossing of the optic nerve fills the blank which has till now existed in the precise localization of those brain affections in which the eyes are concurrently affected.

TRANSFUSION.—The following are taken from *Pepys's Diary*, dated 1666 :—

"There was a pretty experiment of the blood of one dog let out, till he died, into the body of another on one side, while all his own run out on the other side. The first died upon the place, and the other very well and likely to do well. This did give occasion to many pretty wishes, as of the blood of a Quaker to be let into an Archbishop, and such like; but as Dr. Croone says, may, if it takes, be of mighty use to man's health, for the amending of bad blood by borrowing from a better body. . . . .

"A poor and a debauched man, that the College have hired for 20*s.* to have some of the blood of a sheep let into his body; and it is to be done on Saturday next. They propose to let in about twelve ounces, which they compute is what will be let in in a minute's time by a watch. . . . .

"I was pleased to see the person who had his blood let out. He speaks well, and did thus give the Society a relation thereof in Latin, saying that he finds himself much better since, and as a new man; but he is cracked a little in his head. He had but 20*s.* for his suffering it, and is to have the same again tried upon him; the first sound man that ever had it tried on him in England."

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC.

Dec. 22d, 1873.—*Pott's Disease.*—Dr. Tarbell reported the case and showed the specimen, which was from a patient who had the usual history of Pott's disease, arising from severe injury eight or ten years ago. Pain in the back, pelvis and anterior of the thighs has been suffered at intervals since. Three years ago, he had pneumonia of the right lung; since then he has steadily failed. He consulted Dr. Hodges last July, for psoas abscess, and was referred by him to Dr. T. Apparatus for spinal support was so irksome and painful that he soon abandoned it and took to his bed. The abscess was evacuated with the aspirator by Dr. Hodges, and several times subsequently by the family physician, Dr. Richards; and it finally made a permanent opening for itself, discharging large quantities of pus.

At the autopsy, all the parts in the neighborhood of the disease were found infiltrated with inflammatory products. The psoas muscles, on each side, seemed to be transformed into canals for the passage of pus. There was no large cavity containing pus, and it seemed strange that so small an apparent amount of disease could produce all the pus which had flowed out the last few months. The right lung was adherent throughout, and at its base were found two cheesy masses, about the size of a pigeon's egg, not surrounded by any appearance of recent inflammation.

The specimen showed that only the bodies of the last dorsal and first lumbar vertebræ, with their intervertebral cartilage, were involved, although the spinous processes of four or five vertebræ were prominent during life. New bone had been thrown out at the sides of the bodies of the diseased vertebræ, showing the attempt of nature to restrain motion at that point.

Although there was considerable deformity, the calibre of the spinal canal was not materially lessened; tending to show that the paralysis of the lower extremities, which so often accompanies Pott's disease, is due, not to compression of the whole cord at one point, but to the inflammation extending to it.

Dr. Tarbell said he thought it fair to infer, from the appearance of this specimen, that the disease began in the intervertebral substance. If so, it contradicted the theory, stated as fact in many text-books, that the disease always arises from softening of the bones themselves, and requires a scrofulous constitution for its development.

Dr. Jackson said that he had been struck with the small amount of narrowing of the spinal canal that was found in cases where the angular distortion was very marked. According to Sir Benjamin Brodie, the disease usually commences in the intervertebral substance. He showed a specimen from the Society's Cabinet, from a boy, where anchylosis had already begun, when the disease broke out in a new place above; and there the intervertebral substance had been entirely destroyed. This was the only case Dr. Jackson had ever seen where the disease existed in two places.

An unusual variety of Purulent Inflammation of the Tympanum.—Dr. J. Orne Green read the following paper:—

"While in the common purulent inflammation of the tympanum, the pus secreted by the mucous membrane which lines that cavity finds an exit by rupturing the drum-membrane, either in the anterior or posterior segment, somewhere about its centres, I have seen a few cases where the rupture has occurred in the extreme upper portion of the membrane, the membrana flaccida, and these have been so obstinate under treatment and so serious that I desire to direct special attention to them.

"Some five or six years ago, Troeltsch directed attention to the fact that a portion of the tympanic cavity extended outwards over the meatus externus, external to the head of the hammer, and he describes one case in which, the bone separating, the meatus and this cavity had been perforated, and a polypus growing upon the tympanic mucous membrane protruded through the perforation, and could have been easily mistaken for a polypus attached to the upper walls of the meatus. Since then, one or two cases of polypi similarly attached have been diagnosticated and operated upon with success. In these cases, however, the bone had been perforated at some distance from the membrana tympani.

"In the five cases of perforation of the membrana flaccida which I have seen, the purulent inflammation has followed a long-continued, subacute or catarrhal inflammation, and has come on without the usual severe acute symptoms. In almost all of them, the intensity of the inflammation seemed also to be confined to the upper portion of the cavity; that is, the lower portion of the tympanum was never filled with pus, nor was any congestion to be seen, except in the neighborhood of the perforation. In four of them, the bone had become carious for a greater or less distance into the meatus, a fact which was demonstrated by the probe, and in the fifth case I suspect now that there was also a slight caries, although, as that was the first case which I had seen, I did not examine it thoroughly. The extent of bone destroyed varied from a piece the size of a probe's point to an opening large enough to admit the little finger. The cavity already described by Troeltsch was thus exposed.

"The symptoms were confined to a slight but offensive purulent discharge and more or less deafness and subjective noise. The deafness and noises were, however, present with previous catarrhal inflammation, and did not increase afterwards, except when the ossicula became clogged by a collection of pus. Pain was absolutely wanting, as also was any sensation of throbbing.

"In treating the earlier cases, I endeavored, by the application of astringents into the cavity and by careful cleansing, to check the inflammation, but without the least success. In the later cases, I have limited the treatment to removing all collections of inspissated pus by thorough and careful syringing into the cavity, and then keeping the cavity clean by frequent syringing of the meatus. The patients were also directed to inflate the ears by Valsalva's method during the syringing, in order to force out the pus from the tympanum. It was, however, a noticeable fact that, in several of the cases seen, no perforation whistle followed the perfect inflation of the tympanum.

"More than a year ago, at the Society for Medical Observation, I called attention to the intractability of this form of disease under treatment; subsequent experience in the two following cases has taught me that the disease may heal or result fatally.

"I.—Mrs. G., aged 30, with a very decided hereditary tendency to disease of the ears, had, during childhood, frequent 'gatherings' in both ears, and since then the left ear had discharged continuously, and she had been almost totally deaf on that side. On the right side, there had existed for years a catarrhal inflammation of variable intensity, with a gradually increasing deafness. Examination showed the right meatus congested and covered with flakes of moist epidermis; the right membrana tympani was quite white, very much thickened and drawn inwards, with a marked congestion along the manubrium. The left membrana tympani exhibited very nearly the same appearances as the right, except that above the short process was a drop of pus, beneath which was an opening occupying the position of the membrana Shrapneli; a bent probe could be passed upwards into this, and a small spot of rough bone could be felt on its edge.

"The catarrhal inflammation in the right ear improved very much under mild astringent injections through the catheter, leaving only a considerable degree of deafness from the thickening of the tissues. In the left ear, I endeavored, by syringing, mild astringents, and, finally, the application of strong solutions of nitrate of silver, to check the suppuration, but with only slight effect, and that merely temporary. A year afterwards, the patient took a severe cold; the right ear became inflamed again, and when I saw her, a few weeks afterwards, there was a perforation of the membrana Shrapneli, a small spot of bare bone on its edge and a slight otorrhœa, with increased deafness. Her cold left a severe bronchitis, which so affected the general health that she passed most of the winter at the south, taking pains to keep the ears cleansed by syringing. She returned after some months, almost entirely free from all catarrhal trouble; and the perforation in the right ear gradually healed by a cicatrix which lies against, and is attached to, the head of the hammer. That ear has now been free from active disease for some nine months. The left ear remains in the same condition as when first seen.

"II.—Mr. N., aged 45, was first seen about five years ago; the hearing of the left ear had been destroyed by purulent inflammation years before, but the discharge still continued, and a small polypus filled the meatus. He was unwilling to have the polypus removed, and I did not see him again for two years, when, becoming alarmed by a slight discharge from the other ear, he placed himself under treatment. The right ear showed a general catarrhal inflammation of the whole tympanum and tube, with a perforation of Shrapnel's membrane and bare bone, as in the previous case. The polypus in the left ear, diagnosticated two years before, had disappeared, and in its place was a sequestrum of the cancellated structure of the bone, which was broken up and removed under ether. The removal of this mass and the application of astringents for a short time checked the discharge in that ear entirely, and no more caries could be discovered, although the upper wall of the meatus had been largely destroyed. This ear remained so through life.

"The general catarrhal inflammation in the right ear improved very much under treatment, and the hearing became very good; but the perforation and discharge continued in spite of all applications. During the next year, I saw him four or five times on account of an increase in the deafness, which was always relieved immediately by the removal of the pus which had dried on the ossicles. Last August, dur-

ing my absence from the city, the deafness became very much worse; this was soon followed by headache, especially over the right half of the head, and by severe chills; these symptoms continuing, the right membrana tympani was punctured, and a considerable amount of pus was evacuated, but without relief. The chills recurred once, and sometimes twice, a day; the patient gradually sank, and died four or five weeks after the beginning of the disease. No disease was discovered in other parts of the body. The intellect remained clear; there were no convulsions or paralysis, no tenderness or external swelling over the mastoid. Unfortunately, no autopsy could be obtained, but the persistent headache and continuous severe chills point to a suppurative process within the skull. For an account of his last illness, I am indebted to Dr. Gage, of Lowell, who saw him in consultation.

"The course of the disease in these cases of perforation of Shrapnel's membrane seems to be this:—the catarrhal inflammation, which involves to a greater or less extent the entire tympanum, is accompanied by a mucous secretion from the whole surface of the cavity; but the mucus secreted among the ligaments and other structures in the upper part of the tympanum is unable to gravitate to the floor of the cavity on account of its confined position. This retained mucus serves to increase the existing inflammation; the catarrhal passes into the purulent form, and the membrana Shrapneli is ruptured, but not before ulceration has been set up among the fibrous structures in the neighborhood. To this ulceration among the fibrous structures and to the difficulty of restoring the normal circulation among the bones, ligaments and bands which are crowded together in this small space, I attribute the difficulty of treating the disease. The extreme thinness of the bone which separates the small cavity external to the head of the hammer from the meatus, and the fact that the pus must lie continually in contact with this bone, would seem to render caries more likely here than in other parts of the tympanum. The size of the perforation, if it extends into the bone, can seldom be made out by a direct inspection, but a probe with the end bent at nearly a right angle can be readily put into and around the opening."

Fracture of the Spine.—Dr. Cabot reported the case and showed the specimen.

Nov. 28, 1873, Mary R., aged 35, entered the Massachusetts General Hospital. Six weeks before this, she had fallen down stairs. She did not know how she struck, but she was unable to rise. Her neck was stiff and painful, but these symptoms disappeared in three weeks. Upon entrance to the hospital, she thought she had better control of her arms than immediately after the accident; the power in them now seemed unimpaired above the wrists, but there was very little control of the fingers. The fingers of the right hand, being congenitally malformed, were smaller and shorter than those of the left to a very marked degree; though it was, according to her, the stronger hand of the two.

She has absolutely no control over the lower extremities, but on their being pinched there is a slight reflex action. She says she feels sometimes, when the sole of the foot, especially the right, is pinched, but it is probable that she only recognizes the reflex motion, for when that does not occur, she does not know that she is touched. It is very doubtful if there is any sensation in the legs and thighs. In the trunk,

the line of demarkation between absolutely no sensation and very good sensation is nowhere far from the second rib; never more than an inch to an inch and a half. As she lies in bed, the left foot is extremely inverted. On the sole of the right foot is a large blister.

On passing the finger up the spine, it drops off from the seventh spinous process into a hollow between the spinous processes of the seventh and sixth vertebræ, which latter is perhaps more pronounced than is normally the case.

She has had but one dejection since the accident. This was two or three weeks ago, and was preceded by a dose of senna and an injection. Her abdomen is not particularly hard or distended. She has vomited very often of late, but not until some days after her accident. She can now keep nothing on her stomach except scalded milk. She menstruated regularly about four weeks ago.

She has had a slight cough since a few days before her accident, the expectoration being frothy. The nurse reports seeing once a streak of blood. Pulse 77. Tongue very dirty, with a clean streak in the middle. Small bedsores about the crest of the ilium, on the left side. One enormous sore, nearly covered with slough, involving the upper part of the sacrum and the lower lumbar vertebræ, extends the whole width of the back. It undermines the skin at its upper border.

Since the accident, it has been necessary to pass the catheter twice daily until two or three days ago, since which time urine has constantly dribbled.

The patient was brought to the hospital with her middle enveloped in a sheet containing broken pieces of slough and soaked with decomposing urine.

The bedsore was poulticed, pressure being relieved by pillows under the back and thighs. Diet, scalded milk.

Nov. 30th.—It is noticed that the surface temperature of any particular part falls rapidly on exposure to the air. An extension of three pounds is applied to the neck by adhesive straps. Late in the afternoon, the patient complains of the extension, coughs more, vomits for the first time since entry into the hospital. The front of the chest is resonant, but there are many tracheal râles, with mucous and sibillant râles. Pulse is very weak. Patient looks badly. Given paregoric, sherry and scalded milk. In the evening, there being no improvement, the patient had paregoric, and, two hours later, tinctura opii deodorata. Brandy, with scalded milk, is ordered every hour, when she is awake, until morning. Considerable sleep followed the administration of the opium. Respiration is almost all diaphragmatic.

Dec. 1st.—Cough has disappeared. No more râles are heard. The front of the chest is still resonant. Pulse 108, and much stronger. Face a little flushed. On account of bedsores, she is turned on the right side, and a catheter fixed in the bladder, with a drainage tube attached. The weight of the extension is increased to five pounds, and is attached by a bandage under the lower jaw and one under the occiput. The pulse grows much weaker during the dressing, and she is given brandy at its close. During the day, she is given brandy and milk every hour and a half; and this is continued through the night when she is awake.

Dec. 2d.—General condition better. Tongue cleaner. The weight is increased to eight pounds, and, as she complains of its pressure on

the jaw, it is attached to a bandage under the occiput and about the forehead. During the last two days, there has been no vomiting. A blister has formed on the right hip and has broken, so that she is turned on the left side. She complains of the weight, and is generally fault-finding and noisy in the evening and night. She does not get much sleep.

Dec. 3d.—Noisy and sleepless through the night, and still noisy and irrational. Pulse is fair in strength. Patient is turned back on right side; her blister there being protected by rolls of cotton batting on each side of it. At 1, P.M., she vomits a cupful of coagulated milk, about which there is no smell of brandy. Pulse very weak. Her voice is weaker, and her surface temperature is perceptibly less to the hand. Milk is now omitted, and she is put on brandy in water every hour and a half.

At 4, P.M., she vomits again; is still weaker and complaining of the weight, which was this morning attached again by bandage under the jaw. Has slept very little to-day, and is given one sixth of a grain of sulphate of morphia subcutaneously. She died at quarter past 8, P.M.

Autopsy.—A portion of the spine having been removed and prepared for the College Museum by Mr. Walter Ela, one of the house-surgeons, it is seen that the intervertebral substance between the sixth and seventh cervical vertebræ must have been broken through; and it has now, as shown by a longitudinal section, entirely disappeared, though its former position is distinctly seen. The sixth cervical was carried forward, so that the anterior edge of the seventh, which last retains its proper relation to the first dorsal, comes in contact with the under surface of the body of the sixth, about three lines from its posterior edge. The sixth cervical is also carried downwards in the front of the seventh, and thus makes a curvature which must have nearly or quite equalled an angle of 45°. A triangular space that exists between the under surface of the sixth and the front of the body of the seventh is filled by a deposit of new bone. The upper edge of the body of the seventh is extensively, though not deeply, fractured along the right side, and the lower portion of the body of the sixth, opposite to it, is similarly fractured; that portion of the sixth that forms posteriorly the foramen for the vertebral artery being involved, though not broken through. Upon the external surface, the bodies of the sixth and seventh are strongly and broadly united by a deposit of new but perfectly compact bone, upon their right side. And to give further support to the spinal column, the articular processes, and also the posterior laminæ of the sixth and seventh cervical vertebræ, are firmly anchylosed. The membranes were uninjured, but the spinal marrow at the seat of the injury was softened and smaller than natural. No further examination was made; but, notwithstanding the displacement of the body of the sixth, there is nothing to show a former displacement or fracture of these processes and laminæ. The posterior lamina of the seventh, however, is fractured upon the left side, but there is very little attempt at reparation upon the outer or posterior surface, as shown by a new deposit of bone, and upon the anterior or inner surface, none at all. The laminæ of the sixth, also, were broken upon each side, and, as Mr. Ela thinks, before death, but there had been no attempt whatever at reparation, and the fragments have been removed.

Bibliographical Notices.

Sixth Annual Report of the Clarke Institution for Deaf Mutes at Northampton, Mass., for the Year ending September 1, 1873. Northampton: Metcalf & Company, Printers. 1874.

This little pamphlet of forty pages contains such an amount of valuable information, in a variety of most interesting forms, that we commend its perusal to all our readers.

In the first pages, the report of the President, we learn of the endowment, the expenses, the number of pupils, the plans adopted and the results attained. His statement that, on the best authority, there are in Massachusetts alone more than twelve hundred deaf mutes, or about one in every twelve hundred inhabitants, is certainly astonishing.

The second portion of the pamphlet consists of a letter (furnished at the request of the President) from Mr. Ackers, "an English gentleman of wealth and culture," who visited this and other schools in various countries, seeking information in regard to the different methods of deaf-mute instruction, and having a daughter to be instructed in what they might deem the best method. This letter, of eleven pages, is a summary of the whole matter, and is very interesting and instructive. On the whole, Mr. Ackers inclines to the so-called "German method," whose key-note "is to *make the deaf as much like hearing persons as possible.*"

Next in order comes the Report of the Principal of the School, Miss Harriet B. Rogers, "a lady, whose name," says Mr. Ackers, "we often heard mentioned in European institutions with the pleasure and appreciation it so richly deserved." In this report are general descriptions of the pupils; their condition and capacities; their studies and acquirements, illustrated by a number of literary exercises as written by the pupils, "without suggestion and uncorrected." These exercises consist of stories, descriptions of pictures, journeys, and quite a long poem of no inconsiderable merit. The naturalness of the whole series is quite remarkable; we cannot forbear quoting from one of the fourth class, who mingled a little imagination with his description of a picture. "I can see a man, and his sheep and dog. The little lambs are behind the sheep. *We cannot see them because they are behind.*" (The italics are ours.)

Those of our readers who had the good fortune to hear Mr. Bell describe, at the last annual meeting of the Massachusetts Medical Society, his method of training the vocal organs, and to witness his demonstrations, will be glad, though not surprised, to know that the President of the School, Mr. Ackers, and the Principal all speak in the highest terms of his method; and to hear the statement of the Principal of the class instructed entirely through Mr. Bell's system of "visible speech" that "at their examination it was generally conceded that they had more control over their vocal organs than many of the children who had been in the school two or three times as long."

We earnestly advise our readers to procure for their instruction this interesting and valuable report.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S. Seventh American Edition, edited by J. J. Reese, M.D. Philadelphia: Henry C. Lea. 1873.

We are happy to receive the seventh American edition of this well-known and valuable book.

The Anatomist's Vade Mecum; a System of Human Anatomy. By Erasmus Wilson, F.R.S. Edited by George Buchanan, M.D. Ninth Edition. Philadelphia: Lindsay & Blakiston. 1873.

This is an improvement on former editions. The work is not an elaborate and scientific treatise, nor, on the other hand, a "pony" for students, but it is what it pretends to be, a good manual of anatomy.

Boston Medical and Surgical Journal.

Boston: Thursday, March 26, 1874.

The annual report of the Surgeon-General of this State is a modest record of the quiet but useful work which has been performed in this department during the past year, a work which has now for many years been faithfully carried on by its much esteemed and respected head. The careful manner in which Dr. Dale has attended to the numerous claims which have constantly been brought before him by disabled soldiers or by their families, has earned for him the gratitude of many a needy family and the respect of all those who feel an interest in the future welfare of men who have served their country well. The report contains an interesting account of the National Military Home at Augusta, Maine, and the report of the Superintendent of the Disabled Soldiers' Employment Bureau and Soldiers' Messenger Corps. The record of this latter department is certainly a most gratifying one, and shows how much good can be done by a well-directed charity. The report closes with a graceful tribute to the memory of the late Assistant Surgeon-General, Dr. Hooker.

Such work as has been done by this department merits the respect and sympathy of the profession, and we trust that it may long enjoy the services of one who has so faithfully administered the duties entrusted to him.

On the 19th ult., the seventieth birthday of Rokitansky was celebrated with much enthusiasm. Men of rank and citizens of distinction were present. The Emperor of Austria and King Victor Emmanuel invested the veteran pathologist with badges and titles of honor. At the close of one of the addresses, a bust of Rokitansky, crowned with laurel and tastefully surrounded by foliage, was unveiled amidst much cheering. In the evening, a grand banquet was held, during which a torchlight procession of fifteen hundred students assembled in the garden opposite the hall and sang songs, after which Rokitansky appeared and was received with great applause.

In connection with the authorized report of the *post-mortem* examination of Mr. Sumner, which we give below, we would say that we are indebted to Dr. Brown-Séquard, who was present at the examination, for the statement that Mr. Sumner has suffered from *angina pectoris* since the autumn of 1857, and that he never had a brain affection, as was thought to be the case when he left America for Europe in that year.

The difficulty in walking, from which he suffered at that time, depended "on a morbid state of the fibrous tissue of the upper lumbar vertebræ, his head symptoms being due to an irritation of the vaso-motor nerves of the head at their exit from the spinal canal."

The body was examined on the morning of the 16th, inst.; it was well preserved, though the organs were so altered in appearance, and to the feel, by the embalming fluid, that it was impossible to say in regard to many points whether there was any structural change or not, there being objections to the removal of any portion of the body for microscopical examination. The œdema, which had appeared after death and was so marked, had in a great measure disappeared.

The heart was distended upon the right side with coagulated blood, and there was more or less in the left. Externally, the left ventricle was rounded towards the apex, as in aneurism of the heart. It was, also, somewhat dilated there, as appeared afterwards, and at one part there was superadded a further, slight, but pretty defined dilatation with thinning of the parietes to the extent of about two thirds of an inch. Relatively to the size of the organ, the parietes of this ventricle were rather thin, and those of the right were decidedly so. The left coronary artery was extensively ossified; and, to the extent of about one and a half inches from near its origin, it was greatly contracted. The other coronary artery was atheromatous in patches and quite dilated, but not ossified. The aortal valves were thickened at their attached edges.

The liver was rather large, and had a fatty look. The stomach contained a considerable amount of undigested food. The spleen, kidneys, lungs and brain showed no evident marks of disease; and yet, as above stated, such might have existed and been obscured by the effects of the embalming process.

The cranium presented no unusual appearances, and the membranes of the brain were only adherent to a small extent. The weight of the encephalon was fifty-one and three quarters ounces; the cerebellum weighed four and three quarters ounces; the medulla oblongata and pons Varolii one ounce and a half. The spine was not examined.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, March 11 *and* 14, 1874.)

Operations were performed in the following cases:—Dislocation of Patella, Tumor of Neck, Stricture of Urethra, Wen, Nævus, Wen, Disease of Wrist-joint, Parotid Tumor, Ununited Fracture, Nævus, Fatty Tumor, Cyst, Tumor of finger, Necrosis.

Dislocation of Patella outwards—in a woman twenty-three years of age. Three years ago, she fell and struck her right knee, causing a dislocation outward of the patella. It was reduced, and she has since worn an elastic bandage, using the limb nearly as well as before the accident. Nine months ago, she fell down stairs and again dislocated the same bone; it was not reduced, but the knee was bandaged and an elastic knee-cap afterwards applied. Since the second accident, she has had considerable pain in the joint,

but has been able to walk with the assistance afforded by the knee-cap. A third fall, occurring three days previously, brought her to the hospital. The knee was flattened in front, and the inter-condyloid concavity could be easily felt; the patella, with its articular surface resting on the outer side of the external condyle, was readily detected in its unnatural position. The leg was nearly straight and there was considerable pain, but no effusion into the joint. Under ether, the thigh was flexed upon the pelvis at a right angle, and the leg extended on the thigh to relax the rectus muscle. Direct pressure was then made on the patella without avail, and the device resorted to of suddenly flexing the leg when the patella was pushed nearly into place; but only its partial reduction could be accomplished. The limb was therefore bandaged temporarily to a straight ham splint.

Tumor of Neck—it was lobulated, elastic, not painful, appearing and feeling like a fatty tumor, of the size of a small orange, and situated beneath the platsyma, in the subclavian triangle of a young adult. Dr. Clark punctured the tumor, evacuating about four ounces of a clear, yellow fluid; he then dissected out the sac, which was deeply adherent. The same patient had a ganglion connected with the extensor tendon and situated on the outer side of the foot in front of the ankle-joint. It was punctured subcutaneously.

Stricture of the Urethra—following gonorrhœa twenty years ago; symptoms had existed for five years, but without retention. On entrance, the patient passed his water in drops. Under ether and after an hour of persistent trial, a filiform bougie was passed into the bladder; to this the "divulsor" of Voillemier was attached and the stricture was ruptured with the larger tube of the instrument. On its withdrawal, a number twelve, elastic catheter was readily passed, and was directed to be left in place for forty-eight hours.

Wen—of the size of a walnut, and situated behind the ear of a woman fifty-five years old. Dr. Clark made an incision through the skin and excised the growth.

Nævus—of the size and shape of an almond; located on the cheek and involving the lower eyelid of an infant three weeks old. Excised with the galvanic cautery.

Wen—on the head of a middle-aged woman. First noticed five years ago; recently, it had become painful at night. Removed by Dr. Clark.

Disease of Wrist-joint—in a man forty years old. The disease was of sixteen years' duration; during that time, fragments of necrosed bone had been occasionally discharged from the joint. The hand had been rendered useless by the long-continued inflammatory process. Dr. Clark amputated by the flap method, just above the wrist. On opening the joint, a small fragment of dead bone, contained in a cavity lined with granulations, represented the carpus; the soft parts had undergone gelatiniform degeneration.

Parotid Tumor—a painful growth which had gradually increased to the size of an English walnut, and of three years' duration, in a man fifty-five years old. A curved incision exposed the tumor lying under the usual thin layer of gland tissue. It was readily enucleated, and presented the appearance of an enchondroma, such as is frequently found in this locality, but which had undergone fatty degeneration.

Ununited Fracture—at the middle of the ulna and radius of a man thirty years old. The accident happened one year ago, and the limb had been placed in splints for the usual length of time. A large amount of new bone had been thrown out in the neighborhood of the fracture; this, by tying the lower end of the upper fragment of the ulna to the radius, had prevented its union with the upper extremity of the lower fragment. There was sufficient stiffening of the radius to warrant non-interference for the present. Dr. Clark made a straight incision of two and a half inches over the ulna, denuded the fractured ends of the ulna, broke the latter away from the radius, and with the cutting forceps removed their extremities, which were not wired, but left jagged to maintain the juxtaposition and promote an early union.

Nævus—hairy, of the size of a silver dollar, on the forehead of a woman. Excised by Dr. Cabot.

Fatty Tumor—on the shoulder of a young woman. The main portion was located over the acromion, and offshoots extended in the direction of the arm and breast. It was excised. A cyst, of the size of a grape, in the lobule of the ear, was also removed from the same patient.

Tumor of Finger—of four months' duration, on the third finger of a boy. Dr. Clark excised the growth, which proved to be enchondroma.

Necrosis—of the last phalanx of the great toe, in an adult. The toe was split transversely up to the first joint, the two sides spread apart, the dead bone removed, and the wound closed by sutures. H. H. A. BEACH.

BOSTON CITY HOSPITAL.

LAST Friday, March 20th, the surgical operations were as follows:—

Dr. Thorndike excised a Vascular Nævus from the cheek of a child a year old. He remarked that excision left a less prominent scar than other operations—ligation, vaccination or the cautery—would do.

Dr. Cheever operated for the relief of the contraction of a Vicious Cicatrix at the bend of the elbow. The patient was a child eight years old, and the cicatrix was the result of a burn. The tension was greatest in the middle line of the elbow, lengthwise; an obstinate ulceration existed at the bend of the joint in front. A V-shaped flap of skin, with its apex pointing downward, was dissected from the forearm below the indurated tissue and allowed to retract. The two sides of the denuded surface were then apposed by silver-wire sutures, and the apex of the retracted flap was likewise brought into apposition to the edges of the wound near the base of the triangle. The arm was then placed, extended, on a posterior splint.

Dr. Cheever incised a Fistula in Ano, the result of an ischio-rectal abscess. The sphincter was divided, backwards and outwards, on the same side.

March 16th, Dr. Cheever plugged the nares of a patient who had been brought to the hospital the day before with a fractured nose and numerous contusions. During the night following the injury, epistaxis came on, which was checked by the application of ice. Early the next morning, the bleeding recurred profusely, and could not be stopped. The patient was exsanguine, tremulous and alarmed. Dr. Cheever plugged the right opening of the posterior and anterior nares with sponge, and the bleeding ceased. The plug was to be retained forty-eight hours.

In connection with this case, Dr. Thorndike showed a patient whom he had plugged for epistaxis several weeks before. The bleeding was controlled, and the plugs were removed the second day. Great irritation of the mucous membrane resulted. The patient now had an enormously swollen nose of a pyriform shape, red and œdematous. From both nostrils protruded red masses of mucous membrane. The anterior nares were completely closed. An incision into each nostril gave exit to much pus. The trouble was an abscess of the septum, whereby the mucous membrane had been pushed forward, occluding the nostril. Dr. Thorndike remarked that ulceration is not uncommon after plugging the nares, but abscess is a rare result. F. W. DRAPER.

Correspondence.

A CASE OF INTUSSUSCEPTION.

SUNCOOK, N. H., Feb. 20, 1874.

MESSRS. EDITORS,—The following case, which came into my experience, may interest the readers of the JOURNAL, as it has myself and those to whom I have mentioned it.

The patient, aged two years, presented the following appearances at my first visit, May 6, 1871:—There was an eruption over nearly the entire body, but most marked on the back, lower parts of the abdomen, inside of the thighs and nates. The eruption was in raised patches, similar to that of urticaria, from the size of a pin-head to one or two inches in diameter, somewhat irregular, and very red. The skin was hot and dry, the eyes dull, the pulse quick. The urine was scanty and high colored; the bowels were free. The tongue had a white coat, with a yellow stripe in the middle. The general appearance of the countenance was pale.

May 7th, morning.—Patient very much as on the day before; patches a little faded; very slight tympanites.

Noon.—Patient grows worse. The patches assume a copper color, and fade away to a slight tinge.

Evening.—Very restless, tossing about wildly; breathing short, jerking and rapid; pulse very rapid and small.

The patient sank into a comatose state, and died about 2 o'clock in the morning of May 8th.

At the *post-mortem* examination, made twelve hours afterwards, twelve portions of the bowels were found where intussusception existed, the invaginated portions measuring from two and a half to twelve inches in length. Small patches of inflammation were found in connection with the intussusception, but none elsewhere. No other indication of disease could be found at the examination.

J. R. KIMBALL, M.D.

VENESECTION IN PUERPERAL CONVULSIONS.

MESSRS. EDITORS,—The writer of the following letter having kindly consented to its publication, I send it for insertion in the JOURNAL, in the hope that it may elicit the opinions of those who have more knowledge and experience in the subject of puerperal convulsions than myself.

Truly yours, F. MINOT.

Pawtucket, R. I., Jan., 1874.

DR. F. MINOT:

Dear Sir,—Last June, there was reported by you a case of puerperal convulsions, in which bleeding was practised with benefit. You bled, because the patient was "stout." I sent you a card, informing you of my usage in these cases, to wit, bleeding *coup sur coup*. This is not my plan alone; every regular physician in this place holds the same opinion, and, after diligent inquiry, I do not think that three per cent. of the cases of this kind that have occurred here for twenty-five years, so treated, have proved fatal. In the first case I ever had, I bled the patient two quarts, and she was not particularly stout. This amount was required to control the "fits;" then, the coma was met by a generous blister to the nucha. This (the blister) has been of salvation service in other like cases, where coma existed.

Jan. 6th, I visited a patient, eight months advanced, who had never before carried a child beyond four months. For the last month, she had had pain in the head, scanty urine, puffy face and skin generally. She had the third "fit" as I entered the house (first one only four hours prior). I at once bled her a quart, and gave cathartics freely. No return of convulsions; urine, which was highly albuminous, in a week became free of albumen, and, from being scanty, copious; œdema disappeared; pain in head all gone. She is not yet delivered, but all symptoms of uræmia have disappeared. I have no doubt at all but she will do perfectly well.

One week later, to wit, on the 13th, I had another case, primipara, or, rather, she had aborted two or three times early (second or third month). She was at term; but little advance, but pains not hard. In fact, I had been in attendance from Sunday evening, Jan. 11th, when, about midnight of the 12th, she had a convulsion. About 1 o'clock, A.M., of the 13th, I

applied my forceps and effected delivery. During their application, she had a second fit. I bled at once, after each convulsion, taking a pint at each time. In this case, there were no symptoms of uræmic poisoning. The first thing that attracted my attention was the patient's statement, an hour or two before the first fit, that she could not see; but as there was no congestive appearance of the face, I did not bleed *then*, as I no doubt should have done. The pulse was not full—in fact, I was not anticipating a complication of this kind; the loss of vision only partially put me on the alert; the patient being rather pale, I tried to explain this symptom in another way. The first fit, however, brought out my lancet, and with good results.

Some time in November, I visited a young woman eight months advanced in her first pregnancy. I found her puffed, with scanty and albuminous urine; no headache. I prescribed the old-fashioned remedy, *pulvis purgans*, until free catharsis ensued; I used, also, sol. nit. potass.; lowered the diet, which had been too much animal. In a week, nearly all the symptoms suggestive of eclampsia had disappeared, and at term, all passed off nicely. She might not have had "fits," some may say; this is true, but one of my relatives in this plight would have had this treatment.

Per contra, within about thirty days, *four* young women belonging to this vicinity have fallen victims to this malady, *none of them bled;* and I feel certain that 75 per cent. of all not bled, having this disease, during the last twenty-five years, in this neighborhood, have died! Medical men are deceived by the pale, puffy face, and think the blood is *watery*, and that plethora does not exist. No blood has a more firm, dark clot (and as large) as that taken from these patients. A relative of one of the above "four," bemoaning the fact that bleeding had not been practised, informed me that, a few months since, a young woman in Providence lay two days in convulsions, under the charge of a physician in good repute who would not bleed her because "her blood is all water now." He was told, "if you do not bleed her, Dr. Whitney will, and shall." Thereupon, a full bleeding was practised, with the best result; to his astonishment, the blood had a large, firm, dark clot.

Without entering on a discussion as to the pathology of the state, the fact is, if bleeding is not practised, paralysis of the brain rapidly takes place from œdema of the cerebral substance, and coma and death follow. Nothing but loss of blood, then, will avert these fatal changes in, I believe, 75 per cent. of the cases, at least. If we were timely consulted, cathartics, diuretics, and regulating the diet would, no doubt, be all that would be required, at least, in many cases. In reading the reports of the Medical Societies in and around Boston, as I have done for years, I have observed for a long time that bleeding was not practised as with us here (ALL OF US), and that the mortality has been far larger than with us. (I must say, in explanation, that three of the fatal cases I allude to were under homœopathic treatment. The other who was not bled died out of town, but belonged here; whether homœopaths treated her or not, I do not know.) Chloroform, chloral hydrate (per rectum), ether, bromide of potassium, and the like, may do good, even may be required, *after plethora is removed;* opiates never; they are generally hurtful. I have no doubt but morphine was given for the headache to one of these young women who died under homœopathic (?) treatment. I am not aware of any difference of opinion among our regular physicians here in Pawtucket, regarding bleeding in puerperal convulsions; and within a few years our views, I think, have been adopted to quite an extent by the physicians in the city of Providence. Undoubtedly, bleeding is, and has been, practised everywhere, but, I think, not to the same extent as with us; and I feel entirely certain that nowhere has the mortality been so low as here. Hoping to be of benefit to somebody, I write this long letter to you; and if you see wherein I may be mistaken, do not fail to freely state your views in contradiction to mine.

Most respectfully,

JAMES O. WHITNEY.

Medical Miscellany.

Dr. H. I. Bowditch will read a paper to-morrow (Friday) evening, at 8 o'clock, before the Boylston Medical Society, at the Medical College, on the History and Present Prospects of Thoracentesis. Physicians are invited.

Scarlet Fever of a malignant type has been very prevalent in the Faroe Islands. In the principal town, Thorshaven, which has a population of 700, there were 80 cases, 30 of which proved fatal. There is little or no medical aid procurable in these Islands, and the distress and helplessness of the people are very great. The disease is said to have been conveyed to Faroe by a passenger from Orkney.—*Lancet.*

Irritable Stomachs.—The *New York Medical Record*, March 16, 1874, reports that, at the Charity Hospital, the method of treatment which is almost uniformly adopted when an irritable condition of the stomach manifests itself in connection with any chronic disease, is to administer *raw beef*, chopped fine and seasoned with salt, pepper and vinegar. Dr. Smith stated that this plan had, in his ward, seldom failed to afford relief.

Acetic Acid Spray in Diphtheria.—At the Charity Hospital, New York, very satisfactory results have been obtained in the local treatment of diphtheria by the use of acetic acid, in solutions of varying strength, in the form of spray produced by the atomizer. It seems to have the power to dissolve the membrane, and in several cases where well developed and somewhat advanced croupy symptoms were present all were relieved, and that quite speedily, by the use of this agent.—*New York Medical Record.*

Prophylaxis of Post-partum Hæmorrhage.—Dr Chas. J. Egan reports several cases, in which he has used gallic acid for this purpose. In the cases mentioned, severe post-partum hæmorrhage had occurred, in some of them several times. To prevent its recurrence, Dr. Egan directed his patients to take a pill, composed of gallic acid, three grains, and extract of rhubarb, one grain, morning and evening daily, for six weeks previously to the time of the expected confinement. After following this treatment, none of his patients met with the complication which had attended their previous labors.—*Medical Times and Gazette, Feb.* 28, 1874.

Acute Articular Rheumatism.—At the Charity Hospital, New York, the following is in use as a local application:—

℞. Tinct. opii, ʒi.;
Spiritûs chloroformi, ʒiss.;
Linimenti saponis, ad Oi. M.

This liniment is applied freely to the joints and immediately covered with cotton and oiled silk. The relief from pain afforded by this application has been gratifying.—*New York Medical Record.*

On the Value of the Sulphides in Suppuration.—Dr. Sydney Ringer speaks dogmatically of the usefulness of the sulphide of calcium in arresting suppuration on the one hand, and in favorably modifying the progress of an abscess once formed, on the other. He praises the drug in connection with the glandular inflammations common in children after the exanthemata. He gives the sulphide in doses of a tenth of a grain, in a grain of sugar of milk, every two hours, to a young child. In furuncular affections, also, the drug is said to be of excellent utility, both in promoting maturation and in preventing the farther formation of fresh boils. In scrofulous and indolent abscesses about the neck, especially such as develope in children, similarly good effects are observed from the use of the sulphide of calcium. If small doses (the twentieth or tenth of a grain) do not suffice, larger doses (half a grain to a grain) should be given; and the treatment should be continued several weeks, even after the suppuration has ceased.—*The Lancet.*

UNIVERSITY OF PENNSYLVANIA MEDICAL SCHOOL.—During the ensuing summer months, this school will be removed to West Philadelphia, and in connection with it will be opened the new University Hospital. This is to be conducted upon the specialty system, and we note the establishment of seven beds (the number to be increased in the future) for diseases of the skin; also of useful and elaborate baths, the construction of these to be under the immediate and exclusive superintendence of the physician for skin diseases. The Hospital Staff is composed as follows: D. Hayes Agnew, Surgeon; John Neill, Associate Surgeon; William Pepper, Clinical Medicine; Wm. Goodell, Diseases of Women and Children; Wm. Morris, Diseases of the Eye; Geo. Strawbridge, Diseases of the Ear; H. C. Wood, Diseases of the Nervous system; L. A. Duhring, Diseases of the Skin.

NOTES AND QUERIES.

MESSRS. EDITORS,—I was rather surprised to see Mr. Babo's description of croton chloral hydrate. Liebreich makes this statement:—"When chlorine gas acts on aldehyde, croton chloral is formed, as has been demonstrated by Dr. Krämer and Dr. Tinner. In order to avoid a mistake which is apt to be caused by the name, I must here remark that this body possesses no relation whatever to croton oil, although its chemical constitution proves it to be the chlorated aldehyde of crotonic acid. Croton chloral differs in its outward appearance from hydrate of chloral by its being dissolved with difficulty in water, and by its crystallizing in small glittering tablets."—*British Medical Journal*, December 20, 1873.

Is Mr. Babo or the German professor correct? Will Mr. Babo give his authority for his statement, which is so directly at variance with the Professor's? S. G. W.

ALTON, ILL., March 12, 1874.

WILL the Editors of the JOURNAL please inform me if the operation of paracentesis pericardii was ever performed for hydropericardium in acute pericarditis?

Respectfully, C. M. SMITH.

The term hydropericardium is usually employed to designate simple dropsy of the pericardium, and not the exudation due to inflammation. We think we fully understand, however, the question of our correspondent, and appreciate his feeling in asking it. Most of the operations of paracentesis pericardii have been in cases of grave general disease, very often tubercular, where only temporary relief was hoped for.

On the other hand, the amount of exudation is rarely large enough to call for the operation in acute pericarditis, as it occurs in less serious affections, acute rheumatism for instance. A striking case, however, of paracentesis pericardii in acute rheumatism, apparently saving the patient's life, was reported in this JOURNAL, Feb. 28, 1867, from the *London Medical Times and Gazette*. This case occurred in the practice of Dr. Clifford Allbutt, of Leeds.

If our correspondent is interested in the history of this operation, we would refer him to a lecture of thirty pages on it in Trousseau's Clinical Medicine. Bellingham, according to Dr. Flint, has collected together thirteen cases in his work on Diseases of the Heart. Trousseau, in his lecture, gives details of quite a number of cases.—EDS.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and Towns for the week ending March* 14, 1874.

Boston, 140; Worcester, 26; Lowell, 18; Milford, 4; Chelsea, 6; Salem, 14; Lawrence, 19; Springfield, 9; Lynn, 16; Fitchburg, 2; Newburyport, 3; Somerville, 10; Fall River, 22; Haverhill, 5; Holyoke, 2. Total, 296.

Prevalent Diseases.—Consumption, 52; pneumonia, 36; scarlet fever, 16; croup and diphtheria, 8.

Boston reports one and Fall River two deaths from smallpox.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, March 21st, 133. Males, 75; females, 58. Accident, 5; apoplexy, 1; anæmia, 1; inflammation of the bowels, 1; bronchitis, 11; congestion of the brain, 1; disease of the brain, 8; burned, 2; cerebro-spinal meningitis, 2; cholera infantum, 1; consumption, 26; convulsions, 2; debility, 3; diarrhœa, 2; dropsy, 2; dropsy of the brain, 1; drowned, 1; dysentery, 1; diphtheria, 1; diabetes, 1; erysipelas, 1; scarlet fever, 8; typhoid fever, 1; gastritis, 1; disease of the hip, 1; disease of the heart, 9; hæmorrhage, 2; intemperance, 2; disease of the kidneys, 4; inflammation of the knee, 1; laryngitis, 1; congestion of the lungs, 3; inflammation of the lungs, 4; marasmus, 6; measles, 1 old age, 4; paralysis, 1; peritonitis, 1; puerperal disease, 2; pyæmia, 1; rheumatism, 1; syphilis, 1; whooping cough, 1; ulcer of the leg, 1; unknown, 2.

Under 5 years of age, 45; between 5 and 20 years, 13; between 20 and 40 years, 27; between 40 and 60 years, 28; over 60 years, 20. Born in the United States, 89; Ireland 34; other places, 10.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

A CASE OF DISLOCATION OF THE HIP-JOINT BY MUSCULAR ACTION.

Read before the Boston Society for Medical Improvement.

By CHARLES D. HOMANS, M.D., Boston.

THE case of John Scannell was for many years well-known to the profession in this city, and a full history of it was published in the JOURNAL for May 17, 1855, by the late Dr. John C. Warren. From this published report, and from the records of the Massachusetts General Hospital, the following has been drawn up :—

In February, 1848, Scannell, who was a house-servant, and then in perfect health, was called on to shovel a large quantity of snow ; and, the next day, was attacked with intense pains in the pelvis and loins, for which he was bled, and otherwise treated, but without relief. In March, he entered the hospital under the care of Dr. Warren ; he was in a hectic condition, and with such intense pain as to require, on the night of his arrival, one grain and a half of the sulphate of morphia. The pain, which extended the whole length of the lower extremities, was neuralgic in character, and there was also pain in the rectum. The slightest touch was insupportable, so that it was impossible to examine the back, and the limbs were examined with difficulty. Notwithstanding the use of air pillows, and other appliances, the sacrum and the back of the heels became extensively ulcerated.

May 26th, the left lower extremity was found to be inverted, and the patient himself could not move it. Pain at length subsided, and he was taken out of bed, but could not support himself. As he improved, it was obvious that the left hip-joint was dislocated and anchylosed, although there had never been any violence to explain this very remarkable condition. The other hip and the knee were also stiff, and it was thought that the whole might be owing to muscular contraction. On the 28th of August, therefore, the joints were forcibly flexed and extended, under ether. The left hip was found to be immovable, and the whole extremity so distorted as materially to interfere with his walking. The right hip-joint had a very limited motion, and the knee was bent with difficulty. This operation of passive motion had been performed twice previously, as it was several times subsequently, during his stay in the hospital.

After this he improved much in his general health ; but on the 28th of September, when he walked out into the grounds, with an attendant, for the first time, dislocation was unequivocal. On the 15th of Feb-

ruary, 1849, an attempt at reduction was very carefully made with pulleys; and afterwards a second attempt was made, but without the least effect.

On the 17th of March, as the limb was not improving, and as great inconvenience was experienced from its interfering with the other, Dr. Warren sawed through the bone an inch and a half below the apex of the trochanter major, and, everting the limb, brought it into a natural position. From the effects of this operation, which were quite severe, he soon recovered; and on the 25th of May, the wound was closed, but the lower extremities continued to be stiff, and especially the right hip-joint and knee. On the 18th of the following October, therefore, and in order to prevent a permanent anchylosis, the left knee was forcibly bent, and the adhesions gave way. The whole limb was then flexed, extended and rotated at the false joint, and with a moderate application of force; the right knee was then flexed and extended; all attempts, however, to move the hip-joint were for some time fruitless, but at last the contractions gave way with a loud crack.

After this last operation, his walking improved, his health became good, and on the 8th of August, 1850, he left the hospital.

In March, 1855, Dr. Warren called to see him, and found him able to walk about with a crutch and a cane. A perfectly erect position, he could not assume. The right hip-joint was very stiff, but the motions of the knee and ankle were perfect; the left hip-joint was also very stiff, and though the patient seemed to feel a motion in it, the pelvis was moved when the force was increased on either side, so that, on the whole, it seemed impossible to determine whether there was actually any motion in either hip-joint. The left thigh was plump and round, and considerably larger than the right; and the left foot was turned neither inwards nor outwards. There was no pain in any part of the lower extremities, but, from the first, he had never been free from pain about the junction of the sacrum and coccyx, though there was no sensibility there on pressure.

Dr. Warren regarded the diagnosis as obscure in some points, but concluded that the primary attack was an inflammation of the spinal membranes; that the nerves of the lower extremities were affected in consequence, and the contraction of the limbs followed accordingly; that the dislocation was a consequence of the spasmodic action of the muscles, and that the stiffness, which affected the false joint as well as the other, was, as it had been, of a rheumatic character.

From the above date (1855) until his death, which occurred in October, 1872, at the age of 57 years, Scannell enjoyed excellent health, and exercised abroad freely; but he was always obliged to use a crutch and a cane. Pain in the lower part of the spine, however, was nearly constant, and it extended somewhat to the region of the kidneys. When he took cold, this increased, extending the whole length of the spine, more or less, and throughout the entire length of the lower extremities; but there was never any in the head or upper extremities. The power of motion in the knees was very slight, and it was not certain that there was any more in the right hip joint than in the left. When seated in a chair, he supported himself upon the front part of the seat, with both lower extremities fully extended; and his back seemed equally stiff. About a year before his death, diabetes came on, and under this he gradually sank.

Permission having been obtained to examine the left hip-joint, Dr. Wm. L. Richardson removed the greater part of the os innominatum, with the the upper part of the femur. The specimen was then prepared by Dr. Thomas Dwight, Jr., and the following appearances were noted:—

Partial dislocation upwards and backwards, and strong, bony anchylosis, one half or more of the acetabulum remaining as a free and open cavity. The outline of the section of the bone, that was made by Dr. Warren nearly twenty-four years before the death of the patient, is satisfactorily traced through the middle of the great trochanter, and through the junction of the neck of the bone with the shaft; the neck of the femur is drawn upwards, and directed forwards. The shaft or lower fragment, as it may be called, is drawn upwards and backwards, united very broadly to the neck and to the remains of the trochanter major, and terminates in a broad, rounded prominence, that is on quite nearly as high a level as the trochanter itself. The shaft is flexed on the pelvis to an angle of about 45°, and abducted to nearly the same degree. Altogether, the union of the two fragments makes a very broad and thick mass of bone.

A section having been made, by Dr. Dwight, through the pelvis, the middle of the head and neck of the femur, a portion of the great trochanter and the upper extremity of the lower fragment, the bone is seen generally to be very much atrophied; the upper and prominent extremity of the lower fragment being, to a considerable extent, quite hollow, and surrounded by a thin and delicate shell of bone. There are, also, smaller cavities in the head and neck of the bone and in the great trochanter. The head of the bone, the outline of which is pretty distinctly traceable, is of fair size, but somewhat altered in form, the outer lamina of bone being, for the most part, exceedingly thin and delicate. Where the lower fragment joins the neck, and in the line of Dr. Warren's section, is a mass of very hard and compact bone, three or four lines in thickness, and extending two-thirds of an inch or more inwards, tapering to a blunt point, and, to some extent, separated pretty definitely from the surrounding cancellated structure. This compact bone extends into the neck, though much diminished in thickness, and forms, posteriorly, its outer wall; and, so far as can be judged, without cutting the bone through, it extends far backwards, forms the connecting medium between the lower fragment and the neck of the bone, and is the chief means of support to the lower extremity. The substance of the ilium is less atrophied than the femur, and gives considerable support to it by overlapping the neck to some extent, and by a prolongation of bone within the remains of the cotyloid cavity. The shaft of the femur, so far as perceived, is of full size, and healthy in structure, but the parietes, where sawed across, are thin.

The following case may be mentioned in connection with the above, though there may be a question in regard to the nature of it. A gentleman, now 43 years of age, had, when he was 10 years old, measles, followed by scarlatina, and that by intense pain in the right hip joint. For this last, he kept his bed for three months, and was then only able to crawl about the room. The thigh became flexed upon the pelvis, and it was evident to one of our best surgeons that the head of the femur was upon the dorsum of the ilium, though there never had been,

and never were subsequently, the usual symptoms of hip-disease—as external discharges, for instance. For a year, he was in poor health, and kept his bed, with an apparatus upon the limb for the purpose of straightening the knee.

The limb is now shortened about two inches, and very slightly inverted. The head of the bone is distinctly felt upon the dorsum of the ilium, and of full size. All the motions of the joint are free and perfect, excepting eversion.

The possibility of dislocation of the hip-joint by muscular action has been adverted to, and Mr. Bryant, in his recent work on surgery, refers to a case that came under his own observation.

A CASE OF UTERUS BICORNIS.

By Albert N. Blodgett, M.D. Harv., Boston.

The patient, 31 years old, unmarried, servant, was admitted to the First Obstetrical Clinic of the Vienna General Hospital Feb. 1, 1872. She was of medium stature, and of rather more than medium breadth of body; of strong, muscular build, and called herself perfectly well. She was pregnant, but could give no account of the duration of the pregnancy, nor of any of the phenomena usually connected therewith. She entered the hospital only because she was no longer able to perform her duties as house-servant. She reported a previous confinement, but her account of it was very confused, and it seems most probable that it was a miscarriage at an early period. She had never been ill.

Feb. 2d.—Upon palpation of the abdomen, a tumor was felt in the right side, occupying the whole of this side, as high as the liver, and extending inwards as far as the median line, to the right of which it was scarcely to be felt. In the left side of the abdomen, nothing abnormal was to be detected, excepting the overreaching border of the tumor in the right side. The outline of the tumor converged from a broad, rounded base near the liver, toward the inlet of the pelvis, and was lost under the pubes.

By internal examination, the os uteri was felt very far backwards, and was directed toward the left side. It was a simple cone, with hardly a trace of fissure from previous confinements; and through the anterior vaginal wall the head of the child was very distinctly felt. The space of Douglass was filled by a tumor, which felt like a mass of fæces in the rectum, but examination with the finger proved the bowel to be empty. The tumor was movable to a certain extent by the fingers in the rectum, and felt smooth and somewhat softer than a fibroid. The parts were not painful, nor was the patient in any way disturbed by the examination.

She was kept in bed, and twenty-four hours later labor-pains were present. The os dilated very slowly, and in twenty-four hours was only large enough to admit two fingers. Examination again determined a head presentation, but the presenting part was very high up. On the left side of the internal os was a cavity which admitted two fingers, and was filled by a jelly-like substance, portions of which could be brought away by the fingers. The pains were now very strong and frequent, but the labor did not progress in a satisfactory manner.

At 5, P.M., Prof. Braun visited the case again, and found the os not so much dilated as in the morning; the labor had not advanced at all, and the woman was becoming exhausted. Thirst was intense; the mucous membrane was dry, and the vaginal temperature was 103° F. Chloroform was now administered, and Prof. Braun made a more careful examination, and discovered that the tumor in the space of Douglass was the unoccupied horn of a bicornate uterus, the right cavity of which contained a fœtus. The walls of the left horn were thickened and soft, but enclosed nothing excepting the soft tissue spoken of above, into which two fingers penetrated, without resistance, a distance of three inches. The junction of the unoccupied horn with the other was situated just above the internal os, and from the anterior and posterior cervical walls, sprang the septum dividing the two cavities. This was thick, with a rounded edge, and extended in a direct line from before backward. In the right uterine cavity could be felt the unbroken fœtal membranes, and through them the head of the child. The form of the uterus was, therefore, as represented in the accompanying wood-cut.



A deformity of the pelvis was now discovered, consisting of a conjugate diameter of only two and a half inches, which at once accounted for the delay in the labor, and the high position of the head. Forceps could not be applied, and Prof. Braun performed turning, with considerable difficulty, bringing down the right foot first, when by gentle traction the trunk soon followed. The delivery of the arms was very difficult, and occupied some time, the child, meanwhile, making strenuous efforts at respiration. The head was now engaged in the narrow portion of the pelvis, and could not be extracted. Forceps were unsuccessfully applied, and after their removal delivery was again attempted by manual assistance, and after very strong traction was accomplished. The child was profoundly asphyxiated, but was restored after half an hour of artificial respiration. The placenta did not follow the child, but remained in the uterus, and could not be removed either by manipulation from without or by injection of cold water into the vessels of the cord, and there was a slight hæmorrhage from the vulva. It was necessary to introduce the hand into the uterus, when the placenta was easily removed, and the bleeding at once ceased. Five grains of powdered ergot were, however, given at the same time, and the patient was placed in a warmed bed, in a room by herself. The child weighed six pounds and six ounces, English weight.

Feb. 4th, 8, A.M.—The patient has not slept since delivery. The abdomen is swollen, and very tender over its entire surface. Thirst is intense, and there is inability to pass urine. Tongue moist. Temperature 101·5° Pulse 100.

5, P.M.—Has slept somewhat during the day, from morphia. Had a slight hæmorrhage, for which ergot (five grains) was given, after which it ceased. Pain over entire abdomen, with slight hacking cough. Temperature 101·4°. Pulse 92.

Feb. 5th, 8, A.M.—Thirst diminished, and abdomen less painful

than yesterday. Milk is present in the breasts this morning. Tongue moist. Temperature 100·6°. Pulse 100.

5, P.M.—Pain in abdomen diminished, and cough not so troublesome. Soup.

Feb. 6th.—Patient steadily improving; less pain than yesterday.

Feb. 9th.—No pain in abdomen. Cough very slight. Patient has considerable appetite, and sleeps well. Pulse 80.

Feb. 11th.—Uterus not to be felt over pubes. Appetite good.

Feb. 16th.—Discharged, well.

Portions of the soft contents of the left uterine cavity were given to Prof. Wedl for microscopical examination; he pronounced it "typical decidua." It is interesting to notice its presence in that cavity of the uterus which had not contained a fœtus, as seeming to indicate that the formation of decidua does not depend upon a stimulation or irritation due to the presence of the ovum in the uterus, as has been thought, but that it may take place quite independently of the contact of the impregnated ovule. It may not be amiss to call attention to the fact that in a large proportion of cases of uterus bicornis which have been carefully noted, other forms of imperfect development have been associated with it, the most frequent of which was lack of union of the lateral halves of the upper lip, hard and soft palate, the absence of portions of the perineum, and, finally, certain other rarer forms of deficient union of corresponding lateral portions of the body. The whole body has a tendency to be broad and short.

That uterus bicornis is a deficiency of development is proved by the fact that the female genito-urinary tract in the early part of fœtal life consists of two canals (canals of Müller), which unite laterally from below upward, the central wall between the two passages disappearing to form the vagina and uterus, while the upper portions continue separate and form the Fallopian tubes. The presence of a septum in the uterus or vagina is, therefore, not a hyperplastic formation, but an indication of an interruption of the proper union of the two primary genito-urinary canals from which the uterus and vagina are developed. In cases of complete separation of the uteri, where two cervices present into a single or a double vagina, only one of the uterine cavities is generally capable of conception, the other remaining in a more or less infantile condition during life. The causes which produce the deformity spoken of are totally unknown. They operate at so early a period of intra-uterine existence that the study of them is one of peculiar difficulty.

Unlike certain other forms of faulty development, as, for example, a superfluous number of fingers or toes, the bicornate uterus is not known to be hereditary. In health, the subjects of this deformity are not from this cause more sensitive to general diseases than other individuals. The menstrual function is somewhat oftener deranged than in women who are normally developed.

LARGE CALCULUS.—"Mr. Pelling shows me the stone cut lately out of Sir Thomas Adams, the old comely Alderman's body, which is very large indeed, bigger, I think, than my fist; and, which is very remarkable, he never in his life had any fit of it, but lived to a great age without pain, and died at last of something else, without any sense of this in all his life."—*Pepys's Diary*, 1668.

Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

Incision of the Posterior Fold of the Membrana Tympani.—The position of the membrana tympani, which is altered in many ways by disease, can always be best determined by an examination of the short process of the hammer. As the membrane itself is drawn inwards, the manubrium of the hammer goes with it, and, as a consequence of this, the short process is pressed more and more outwards, projecting as a whitish knob into the meatus. The result of this movement of the process is that folds are formed in the membrana tympani, running horizontally forwards and backwards from the bone and appearing as sharp, well-defined lines. This position of the membrane, with the projection of the short process outwards, and with well-defined anterior and posterior folds, is seen in cases where the Eustachian tube has been closed for some time, where the tympanum contains mucus or serum, or where there has been gradual retraction of the mucous membrane and tensor tympani muscle from long continued chronic inflammation.

In the more acute cases, the inflation of the tympanum with air, and the treatment of the inflammation, if necessary, by astringent injections, is sufficient to cure the disease and to restore the membrane to its normal position. In cases of longer standing, however, it is sometimes found that, after the Eustachian tube is made pervious and all inflammation has subsided, the membrane still remains drawn in, or, when forced out by air from behind, immediately returns to its abnormal position, owing to the folds of the membrane having become so thickened from the preceding inflammation, that they act as ligaments to retain the hammer in its malposition.

To relieve this unnatural tension of the drum-membrane, Lucæ and Politzer, independently of each other, proposed to divide the posterior fold, and the operation is now generally accepted and successfully performed. Suggested by Lucæ, at first, as specially indicated in the cases of thickening of the drum-membrane, without secretions or active inflammation of the tympanum, where the posterior fold was very prominent, the operation is now used both by him and others in the acute cases where there is mucous and serous secretion, and in which the tension of the posterior fold cannot be overcome by inflation.

In his monograph on the subject, Lucæ recognizes the difficulty of diagnosticating an abnormal tension, since the drum-membrane is known to be variously curved (drawn in), in different individuals with perfectly normal hearing, but the appearance of a prominent fold or folds running from the short process he considers perfectly pathognomonic of unnatural tension, at least in the upper part of the membrane. The operation of dividing the posterior fold is easy, as it is performed on a part of the membrane readily visible. The pain is, as a rule, slight and soon over, but it occasionally lasts for a few hours after the operation. The operation can be best done with a lance-shaped knife, bent at an angle with its handle, so that the hand of the operator does

not interfere with his vision. The incision should be made as near the short process as possible, in order to avoid the long arm of the incus, and, where it is desirable to evacuate secretion from the tympanum, should be prolonged nearly to the middle of the membrane. Immediately after the operation, the upper part of the membrane is perceptibly relaxed, and the whole membrane is less curved. The bleeding is generally very slight; but where the bloodvessels running from the meatus to the manubrium are markedly injected, a considerable quantity of blood may run into the tympanum, but this is soon absorbed without injury. Generally, an immediate improvement in the hearing follows the operation, although where blood has been effused into the tympanum, absorption must take place before the improvement is perceptible. Subjective noises disappear, in some cases entirely and directly; in others, they change their character or become less loud. After the operation, the ear is closed with charpie, and the patient directed to remain quiet for the rest of the day. With this treatment, Lucæ has never seen a purulent inflammation follow. The wound generally heals within twenty-four hours, and, after two or three days, inflation of the ear, either by Politzer's method with the air-bag, or by Valsalva's method, consisting of tightly closing the nostrils and forcing the air into the ears, should be practised systematically several times a day for several weeks.

Lucæ's tables of 48 operations in 45 cases are of interest:

Variety.	Number of Operations.	Decidedly Improved.	Slightly Improved.	Not at all Improved.
Cases without adhesions,	14	7	7	0
Otitis media adhesiva,	27	5	11	11
Cases with secretion,	7	6	1	0
	48	18	19	11

The first cases are those where the inflation brought out the membrane, but it immediately returned on account of the tension of the posterior fold. The second class includes those with adhesions, in many of which the whole lower part of the drum-membrane was adherent to the promontory, a most unpromising condition. The third class includes the more acute cases where there was secretion in the tympanum. It is worthy of remark that in no cases where the operation failed was the previous existing degree of hearing injured, and in most of the failures the deafness was of so long standing and so extreme that disease of the nervous structures was very probable.

Tenotomy of the Tensor Tympani Muscle.—Closely connected with the preceding class of cases, in which the posterior fold of the membrana tympani serves to retain the membrane in an unnaturally tense and abnormal position, are those in which the same result is produced by a pathological retraction of the tensor tympani muscle, which is inserted about the middle of the hammer, and which normally serves, in a degree, to accommodate the membrane to the perception of high tones by slightly increasing its tension. Where any of the conditions already mentioned as producing a drawing inwards of the membrana tympani have existed for a long time, this muscle may become retracted and serve as an insurmountable obstacle to the restoration of the membrane to its proper position. These cases were several years ago

described by Politzer as "secondary retractions of the tensor tympani muscle;" since then, Weber-Liel *(Monatschrift für Ohrenheilkunde)* has introduced the operation of tenotomy of the tensor tympani; the operation has been warmly advocated by Gruber *(Wiener Medicinische Zeitung)*, and has been performed many times by both of these gentlemen and by others.

The operation has, as yet, been performed only in cases of long-standing disease, where the hearing power had been reduced to a minimum, and was undertaken chiefly with the view of diminishing the intra-labyrinthine pressure, the result of the retracted muscle. Weber-Liel uses for the operation a hook-shaped knife attached, at nearly a right angle, to a shaft which revolves by means of a rachet and wheel in the handle; perforating the membrana tympani just in front of the short process, the knife is passed into the tympanum, hooked over the tendon, and the tendon divided by rotating the shaft. Gruber uses, instead of the complicated knife of Weber-Liel, a lance-shaped knife slightly bent at the point, which he inserts in front of the short process and there divides the tendon directly, by transfixion.

On account of the frequent difficulty of reaching the anterior segment of the membrane, which is necessary in both of these methods, and from the fact that the course of the muscle is somewhat backwards as well as inwards, I suggested *(Transactions of the American Otological Society*, 1873) entering the tympanum behind the short process with a knife slightly curved forwards, and then dividing the tendon; this operation I have done several times successfully. The inflammatory reaction after the operation, in any of these methods, is as a rule slight; although occasionally a slight purulent inflammation has resulted, generally traced to carelessness on the part of the patient. The after-treatment consists in the use of inflation to force the membrane outwards, and to prevent the severed ends of the muscle from again uniting. The wound in the membrane heals perfectly within a few days, and generally without leaving any scar.

The only complete statistics of the operation, that is, all the cases operated upon, failures as well as successes, are those of Bertholet, done with Weber's knife *(Transactions of the American Otological Society*, 1873). In sixteen operations on thirteen patients, the subjective noises ceased entirely in seven and were diminished in intensity in three more; in the other six, there was no improvement in the noises. In six of the cases, there was more or less improvement in the hearing. He closes his article as follows: "We have come to regard tenotomy of the tensor tympani muscle as a valuable aid in allaying annoying subjective symptoms, of doubtful utility as a means of improving impaired hearing." It should, however, be borne in mind that the cases in which the operation had been used were desperate ones, not amenable to any other treatment, and, so considered, the results are very encouraging. A few isolated cases, which have been reported, where the operation was done in the earlier stages of disease, seem to point to a brilliant future for the operation, as a means of relieving the delicate nervous structures of the ear from a pressure which must eventually paralyze them if allowed to continue.

[To be concluded.]

Bibliographical Notices.

An Introduction to Practical Chemistry; including Analysis. By JOHN E. BOWMAN, F.C.S. Edited by CHARLES L. BLOXAM, F.C.S. Philadelphia: Henry C. Lea. 1873. Pp. 339.

THE present edition of "Bowman's Practical Chemisty" is the sixth American from the sixth and revised English edition.

The contents of the book are divided into five parts and an appendix. The first part, containing ninety pages, treats of the gases, those experiments which are usually performed to illustrate their properties being described in such a manner as to enable the student to perform them himself on a small scale, and thus render him familiar with those substances which, formerly, he only heard treated of in the lecture room. Fortunately, however, the manipulation with gases is not, in these days, confined exclusively to the lecture room, but is taught practically in nearly all of our larger laboratories, and chapters upon this subject are being introduced into most of the text-books on practical chemistry. This part of the book also contains chapters on glass-blowing, the use of the blowpipe, specific gravity, and the heating of substances in gases, subjects which are very important for the laboratory student.

The second part treats of the special properties of the metals and non-metals in their usual forms of combination. Here the principal tests are concisely but accurately described, and this part is a necessary preliminary to the part upon qualitative analysis. The only criticism upon it, or, in short, upon the whole book, is the entire omission of chemical reactions, which afford the student so much assistance in gaining a knowledge of the chemical changes which take place during the performance of an analysis.

The third part, which consists of a systematic course of qualitative analysis, has been thoroughly revised. This part renders the work of great value as a laboratory text-book. The system of analysis adopted is, mainly, that of Fresenius, but is preferable to the latter for ordinary use, since it is less bulky, easier to refer to, and yet contains everything of importance.

The fourth part treats of quantitative analysis in about fifty pages. The operations in gravimetric and volumetric analysis are described, and a few of the most familiar examples are given. This part is of value only as a sort of introduction to quantitative analysis, and is by no means a complete treatise upon that subject.

The fifth part gives a description of the various reagents in use.

The appendix contains very valuable tables, among which may be mentioned some of the analytical tables translated from "Will's Tables," a table "showing the action of reagents on oxides and acids," and one "showing the solubility of salts," the last being especially valuable to the student in qualitative analysis as a table for reference.

For completeness, the book is all that can be desired, and the rigid exclusion of unimportant, non-practical matter makes it one of the most valuable laboratory text-books which we have, and does away with the objections to the more bulky works, like those of Fresenius and Galloway, the latter, even, having grown too voluminous for convenient laboratory use. E. S. W.

Essays on the Diseases of Children. By WM. HENRY DAY, M.D., Member of the Royal College of Physicians, London; Physician to the Samaritan Free Hospital for Women and Children. London: J. & A. Churchill.

THREE of the papers contained in this little book originally appeared in the *St. Andrew's Graduates' Association Journal*, the *Lancet* and the *British Medical Journal;* the remainder were read before the Harveian Society of London.

The opening chapter, entitled Introductory Remarks on the Study of

Children's Diseases, is full of sound advice and cannot be too highly praised.

In the second paper, the author describes a condition often met with in children, especially in the out-patient departments of hospitals, of pure and simple debility, without disease in any particular organ, and not necessarily to be looked upon as an expectant symptom upon which to build a diagnosis of trouble to come. For such a condition, he claims a special classification under the ailments of children, to which he would give the name debility, at the same time confessing that great caution is required, as the unaccountable debility, in the absence of any discoverable disease, may be the harbinger of mischief to start up hereafter. Still, these cases, with prompt and proper tonic treatment, usually terminate well.

Chapter Third is devoted to the so-called remittent fever of children, and on the febrile state in general. The author disavows any belief in infantile remittent fever as caused by a separate and distinct poison, or that the disease differs in its nature or causes from that of typhoid fever, and can conceive of no greater blunder in medical practice than to consider this a separate and distinct affection, not following the same course as typhoid fever, and not leading to the same complications. At the same time, he believes that the above term would be a better expression for mild cases, running usually a rapid course and not developing into the severe and unmistakable typhoid. Thus applied, there would be no danger of misunderstanding; but we think the author has failed to show sufficient advantage to be gained by thus needlessly adding to the nomenclature of children's diseases, and by thus changing that now generally adopted by the best writers, who have discarded the name of infantile remittent fever, including it under that of typhoid fever, where it has every reason to belong. We have no desire by this criticism to detract from the general excellence of the whole chapter. It is pervaded by a frankness and honesty of conviction characteristic of the whole book.

Chapter Fourth contains the report of a very interesting case of obscure cerebral disease, with remarks; followed by an essay, in two chapters, upon headaches in children.

The last two chapters treat respectively of laryngeal and tracheal irritation in children and of croup.

The subjects treated are all interesting in themselves. The essays are the result of the large experience of a careful and accurate observer. We have read them with pleasure, and cordially commend them to the profession.

The Physician's Dose and Symptom Book, containing the Doses and Uses of all the principal Articles of the Materia Medica and Officinal Preparations, and many Tables. By JOSEPH H. WYTHES, A.M., M.D. Eleventh Edition. Philadelphia: Lindsay & Blakiston. 1874.

THIS book is either too large or too small. It is larger than is necessary to contain such information about doses as a practitioner might possibly want in a hurry. It is far too small to contain any really useful account of symptoms, pathology and treatment, such as is here attempted. It might, perhaps, be useful as a system of mnemonics to a man with a well-filled brain and treacherous memory; but we think few men would dare to frequently consult such a work in the sick room; and, outside of the sick room, and in the presence of other books, its value would be at a minimum.

MECHANICAL CONTRACTION OF THE UTERUS.—Sir James Simpson used to mention a custom among some savage tribes, where, on the approach of labor, a stake was driven into the ground and a long rope attached to it; the distal end of this rope was wound around the patient's body, and she herself gradually turned round so as to be brought nearer to the stake as the labor progressed, thus insuring an efficient following up of the uterus upon the descending child, thereby preventing post-partum hæmorrhage.—*British Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, April 2, 1874.

Scientific circles in the old world are at present considerably exercised about the relative advantages of cremation and inhumation as a means of disposing of dead human bodies. The discussion of such a question would probably be considered premature in our longitude; and, even if experts in sanitary science demonstrated the benefits to be derived from the funeral pyre or the funeral blast-furnace as compared with the custom of consigning dust to dust after the traditional method, we doubt if the revival of the Roman fashion would take root here.

But there is a question for us of practical importance connected with dead bodies, antecedent, however, to their final disposition. We allude to the registration of deaths. The subject has been repeatedly referred to in our pages, and some years ago a pretty sharp discussion occurred about the merits of the registration law in this State, in so far as it concerns the rights and privileges of physicians. It is time the matter was again ventilated. The law remains, just as it was enacted originally; and no modification that we are aware of has been made in its conditions, obligations and penalties. Whether its spirit and letter are executed is an open question. We cannot answer for the doings of physicians in the State at large, but certain facts have come to our knowledge showing that many medical men in this city are either very careless or very ignorant in their way of giving death-certificates. An investigation into the history of some of the cases reveals a degree of inaccuracy in assigning the causes of death such as to seriously compromise any inferences from the registration returns. We have in mind one case, for example, in which the certificate stated the cause of death to have been scarlatina; this certificate was based on the following facts: the patient was a child of three months; it went to bed in perfect health, nursed as usual in the night, and when morning came, it was found dead by its mother, by whose side it lay. The doctor, called immediately, was at a loss to account for the death; he did not think, or did not want to think, that the mother might have overlaid the baby, so he looked about him for a more remote cause of death, and this cause he found in the reported occurrence, some weeks before, of a light case of scarlatina, a number of houses distant, from which there had been no chance of infection. If statisticians hereabouts were able to trace their figures to original sources, they would append to their labored computations the needed

direction :—" These conclusions are not to be accepted without discretion on the part of the reader."

It is presumed, nevertheless, that registration is useful in many ways, and the number of physicians who would favor the abolition of all regulations in the matter of recording deaths must be very small. It is admitted, also, that a certain amount of inaccuracy must attend the practical execution of the statute ; for physicians, who sign death certificates, cannot be infallible in the matter of diagnosis. Moreover, the fallacy of that clause of the statute which directs that " any physician, having attended a person during his last illness, shall forthwith furnish " a certificate, has been forcibly pointed out in the JOURNAL in times past, and the law is shown to be ridiculously loose in defining the " last physician of the deceased," and in imposing penalties.

All this admitted, we still hold that the registration of deaths subserves a useful purpose ; and it is worth while to repeatedly remind physicians to exercise due care and intelligence in making certificates of death. If the law is at fault in its looseness, or in its stringency, it may be amended ; meanwhile, the occasions when medical men will be brought to answer for wilful disobedience of the present law will be very infrequent, if they ever occur. But registration suffers less from the conscientious scruples of doctors to whom the law appears impracticable, than from the easy indifference of other doctors who care little what their certificate declares, so long as they believe that the document is buried in the registrar's office on the same day that the subject thereof is buried in the ground. We appeal to both these classes of medical men in behalf of the *spirit* of the law, and we would extend the appeal to the profession throughout the State.

We observe, in passing, that the Board of Health of Boston are endeavoring to improve the system of registration for a long time in vogue in this city. That part of the City Registrar's department which has to do with the recording of deaths has been placed by the City Council under the control of the Board, and it is proposed to see whether the lax way into which registration has fallen may not be changed for the better. Obviously, the physicians of the city can help or hinder the reform, as they incline. We trust that the inclination will be toward coöperation with the Board of Health.

OUR late English exchanges contain full and exceedingly interesting reports of the proceedings of the various medical societies in London. There appears to be a refreshing revival in these assoiations, and we cannot help wishing that the spirit manifested in their meetings might soon cross the ocean and alight in the hall in Temple Place, in Boston,

to revive the medical conclaves which are wont to statedly hold their hypnotic meetings there.

The Clinical Society has devoted several meetings to the discussion of pyæmia in private and hospital practice, the debate having been initiated by the President, Mr. Prescott Hewett. Many excellent addresses have been made by the representative surgeons, and the end is not yet.

In the Pathological Society, an interesting discussion on cancer was begun at the meeting of March 3d, and was adjourned to another meeting.

The Obstetrical Society, having concluded a prolonged and animated consideration of Dr. Barnes's method of controlling post partum hæmorrhage by injecting perchloride of iron into the uterus, has had a matter of Society discipline and precedent to decide. Mrs. Garrett-Anderson, the well-known, irrepressible female physician, the only woman on the British medical register, knocked at the door for admission to fellowship; but the Society, after a long and enthusiastic debate, gave the lady leave to withdraw by a nearly unanimous vote that "the Bye-laws do not admit of the nomination of female practitioners to the Fellowship of the Society."

Ovariotomy under Difficulties.—Dr. S. G. Stevens writes to the *Medical Times and Gazette* of March 7, 1874, from Rio Bueno, Valdivia, Chili, an account of an operation for the removal of an ovarian tumor performed by himself in the backwoods of South America. The operator showed great skill in the use of the few instruments he could command, and of such materials as he could find at hand.

The patient was an Indian woman, about 38 or 40 years of age, married, who had borne nine children, and who lived near the Lake of Ranco, in the great forests at the foot of the Cordillera. Dr. Stevens first saw her in January, 1871, having passed her hut to ask for lodgings for the night. She was lying in one corner of the hut, on her bed of sheepskins, evidently suffering greatly. She said that, about five years previously, she had had a quarrel with another woman, who had suddenly disappeared from the neighborhood, and that ever since her belly had been swelling; that the other woman had bewitched her, and that unless she could find her—for the Indians believe that the person who has caused them the evil can cure them—or some remedy, she would go on swelling, burst, and die. She was suffering from great dyspnœa. Her countenance was livid, and the abdomen, of enormous size, fluctuated distinctly. Dr. Stevens told her he thought he could take out the evil, and her husband consented to the trial. The intention was to make an exploratory incision, and extirpate the tumor, if possible; if not, to tap and close up the wound. Dr. Stevens set about preparing for the operation, while a messenger was sent four days' journey to obtain chloroform. The instruments were a trocar, made from a piece of bamboo, about ten inches long, hollowed out,

and sharpened to a point at one end, and at the other connected to a piece of India-rubber tubing from an enema syringe; the instruments from a "Charrière" pocket-case, and a pair of craniotomy forceps. The assistants were a Catholic Missionary, two Indians, and a half-blood. The ligature was of raw hide, with two pieces of wood fastened at the ends, in order that more power could be used in pulling it tight; and at the time of using it was to be dipped in warm neats-foot oil.

Jan. 25th.—After the hut had been heated, and the patient brought under the influence of chloroform, the operation was begun. An incision four inches long was made in the linea alba down to the peritoneum. The wound having been dried with cotton wool, a small incision was made in the peritoneum, when the fluid gushed out like a fountain into the face of the operator. On enlarging the incision, the tumor presented. It appeared solid at first, but a point of fluctuation was discovered. On the introduction of the trocar, the fluid ran well at first, but gradually became thicker, and after the tubing had been disconnected it soon ceased to flow from the bamboo tube. On enlarging the opening, another cyst was found which was emptied in the same way as the first, and on introducing the hand behind the tumor, it was found free in every part. The craniotomy forceps were applied, and the wound being extended a little at its upper part, the tumor came out upon the board, which was in readiness for its reception, and behind it a rush of ascitic fluid. The pedicle was rather long, but flat; the raw-hide ligature was applied to it, and tightened by means of the two pieces of wood, pulled by the two assistants on each side of the body until it was almost buried in the parts, and then made fast with two lasso-knots, the ends cut off, and the whole dropped into the cavity. The cavity was mopped out with cotton wool, and the wound closed with fine, iron-wire sutures, and a superficial, continuous suture of silk. Water dressing was next applied, and a warmed flannel roller passed twice round the body. Consciousness returned before the patient could be removed from the table, owing to the priest not attending to the chloroform, being too much occupied with, and astonished at, the operator's movements. Great exhaustion followed, but, under the use of stimulants, the patient rallied.

Dr. Stevens remained in the neighborhood twelve days, during which time the patient for the most part did well. The first pair of sutures were removed Jan. 28th, and day by day one or more was removed, until the ninth or middle one was taken out.

February 26th, the wound had entirely healed, but she complained of pain in the left side near the pubes. Rest, good diet, and care as to the state of the bowels were ordered.

March 15th.—She could stand at the door of the hut to receive Dr. Stevens. Had no pain, but was still very weak.

June 28th.—She came from the lake to the village of Rio Bueno to see her physician—a day's journey through the forest. The menses had returned, and she was quite well.

The patient continued well till Dec., 1872—nearly two years—when she, with her husband, went to the funeral of a relative, drank and became intoxicated. On passing a river, her horse stumbled and fell, and she was drowned.

The tumor consisted of five large cysts, and many smaller ones. Weight, without the fluid, thirteen pounds and a half.

Dr. Stevens had never seen the operation of ovariotomy, nor read any special work on the subject. He had nothing to direct him but the short account given in Tanner's "Practice of Medicine."

APOLLINARIS WATER.—The Apollinaris water belongs to the class of effervescent alkaline waters. It is not incorrectly described as a "natural effervescent mineral water of great purity, very agreeable flavor, and valuable dietetic qualities." The analysis of Bischoff, of Bonn, shows it to be a water intermediate in composition between the famous waters of Selters-Brunnen and Kränchen at Ems. But it has advantages over both of these.

Apollinaris water is certainly the queen of table-waters. It is softer and more refreshing than its only rival, Selters water (Nassau: Selters-Brunnen), and is more pleasant to the palate. Over all manufactured aërated waters, it has an incomparable superiority. The coarse chemistry of the laboratory can never rival the refined operations of nature, and in nothing is this more apparent than in comparing the attempts which are made even by the best manufacturers to imitate natural effervescent waters. The Apollinaris water is one of peculiarly happy constitution, and, skilfully bottled as it is under pressure at the Brunnen, it has all the sparkling qualities which alone make artificial waters tolerable—for what is more intolerable than the vapid flavor of artificial aërated water if the injected gas which disguises its crudity be allowed to pass off?—with the amenity and purity of a water in which antacid qualities are cunningly infused by the master hand of nature.

It is, moreover, a water of great organic purity—another highly important desideratum in which artificial aërated waters often dangerously fail. Its place seems, therefore, marked as the favored beverage of the favored classes, who can select their drinking water. Its outlandish name is, perhaps, a little against it at first, but, no doubt, after a little time, "a bottle of Apollinaris," and "Apollinaris and Hock," "Apollinaris Cup" will be as familiar as "S. and B." Already, we believe, it is beginning to be known in some of the clubs by the affectionate diminutive "Polly." Physicians will find it a valuable addition to their resources, as a cool and refreshing drink, antacid, and useful in promoting digestion and removing gastric irritation. Such a water is the sworn enemy of gout, rheumatism, and their congeners.—*London Medical Record.*

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, March 18 *and* 21, 1874.)

OPERATIONS were performed in the following cases:—Stricture of the Urethra, Felon, Cyst, Necrosis, Caries, Foreign Body in the Ear, Hæmorrhoids, Pannus. During the week, Hip-joint Dislocation, Stricture of the Urethra and Perineal Abscess, Railroad Injury of Foot and Ankle-joint, Railroad Injury of Leg and Knee-joint, Compound Comminuted Fracture of Elbow-joint, Talipes Varus, Strangulated Femoral Hernia.

Stricture of Urethra—of gonorrhœal origin, and with retention of urine, in a man thirty-three years old. It had existed between four and five years, and once before had been the cause of retention. The present attack came on after lifting and carrying a heavy piece of beef on his shoulder; on entrance, the retention was treated successfully by rest and opiates, without any attempt to pass an instrument into the bladder. In addition to a tight stricture, a false passage existed. Under ether, a filiform bougie was with difficulty made to enter the stricture. The "divulsor" of Voillemier was then attached to its extremity and passed into the bladder. Dilatation was

accomplished with the larger tube, and an elastic catheter (No. 12) was introduced, to be left for forty-eight hours.

Felon—of nine weeks' duration, on the thumb of a woman. The extremity was club shaped and perforated with fistulæ that communicated with dead bone. The thumb was split transversely from its end to the first joint and the last phalanx removed. The two flaps were then adjusted by sutures.

Cyst—in the supra-orbital region of a child six years old; congenital, and about the size of a grape. It was remarked that congenital cysts in this region, from their great mobility, often seemed so easily removed that attempts were sometimes made to excise them without ether, proper instruments or assistants; but, as a rule, they are deeply adherent and required a good deal of dissection to effect their removal. In the present case, the firm adhesion of the cyst to the periosteum and surrounding tissues substantiated this statement.

Necrosis of Femur—of long standing, in a young man, following an attack of fever. Fistulous openings on the inner and outer aspects of the thigh communicated with the diseased bone, and there was considerable deformity of the leg, due to the proximity of the disease to the knee-joint, which was not anchylosed, though motion was very limited. The opening on the outer side of the thigh was enlarged, and some large, flat scales of dead bone were removed from the inter-condyloid space; the bony cavity was found to communicate with the interior of the external condyle, but the joint was not involved. The opening on the inside of the thigh was enlarged, to permit free drainage.

Caries—of the os calcis, in a young man. Dr. Clark divided the heel longitudinally, and exposed a portion of the inferior and posterior surface of the bone. The diseased region was removed by the gouge and chisel.

Foreign Body in the Ear—of a child five years old. The substance had become firmly impacted, and the external meatus somewhat lacerated by persistent efforts for its removal before admission. Under ether, the half of a bean was removed, the other half having been destroyed by previous efforts at extraction. Injudicious attempts to remove foreign bodies without ether and with improper instruments were stated to have been often followed by impairment of hearing, and, occasionally, by death, from the extension of the subsequent inflammation to the brain and its membranes.

Hæmorrhoids—in a man. Transfixed and ligatured by Dr. Clark.

Pannus—in a child, involving the inner canthus; it had commenced to encroach upon the cornea. Excised by Dr. Cabot.

Dislocation of Hip-joint.—On Sunday, another attempt to effect a reduction of the dislocation reported in the JOURNAL of March 12th was made with pulleys, in combination with vertical traction and direct manipulation. A repetition of the manœuvres there mentioned was again practised for an hour or more, and was again followed by unsuccess. No additional light was thrown upon the source of difficulty in reduction.

Stricture of Urethra; Perineal Abscess—in a man seventy years old. He has an enlarged prostate, and twice before has been a patient in the hospital: the first time, nine years ago, for retention of urine, when he was relieved by the catheter; the second, about a year since, with perineal abscess, which was opened. It shortly afterward healed, with no contraction of the urethra. Three hours before he entered the hospital this time, there was a sudden and complete stoppage of the urethra, which would not admit even a filiform bougie; opiates and the hot bath gave some relief, but the bladder soon after became so much distended that it was evacuated with an aspirator, over the pubes. A perineal abscess followed, which was opened by Dr. Clark, and found to be located by the side of the urethra; the latter was opened in the perineum, and a large elastic catheter passed into the bladder.

Railroad Injury of Foot and Ankle-joint—in a man twenty-two years old. There was a compound, comminuted fracture of the tarsal and metatarsal bones; the soft parts were extensively lacerated and the ankle-joint opened. Amputation in the lower third of the leg was performed by the circular method.

Railroad Injury of Leg and Knee-joint—in a middle-aged man, with great laceration of the leg and lower part of the thigh, extending into the popliteal space and opening the knee-joint. The muscles of the calf were ground up with sand and the inner condyle was fractured. Both bones of the knee-joint were denuded of cartilage, pieces of which were found distributed through the wound in the calf. The thigh was amputated just above the middle by the flap method.

Compound, Comminuted Fracture of the Olecranon, with Injury to the other Bones of the Elbow-joint—in a man of forty-eight years, from the kick of a horse. The opening in the soft parts was small. Excision of the entire joint was performed by a straight incision.

Talipes Varus—in a boy eight years old. The tendo Achillis, also the tendon of the tibialis anticus, and the plantar fascia were divided subcutaneously.

Strangulated Femoral Hernia—in a woman forty years old. Between three and four years ago, she had a strangulated hernia of the same variety on the opposite side, which was operated on successfully. Taxis, under ether, was employed without avail. Herniotomy was then done by Dr. Clark. The omentum was found adherent to the sac and enclosing a knuckle of intestine, which had not sloughed, but was of a cherry color. The stricture was tight, and required division before the bowel could be returned.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE following surgical operations were performed last Friday, March 27th:—

Dr. Cheever performed Tenotomy in a case whose history was as follows. The patient was a child, three years old. At the age of eleven months, it fell from its cradle; and this was the only accident to which the present trouble could be traced. The child never walked, before or after the accident; its locomotion consisted in a shuffling movement upon the hands and buttocks. It never had pain. There were never any constitutional symptoms, pointing to hip disease.

When the patient entered the hospital, March 18th, inst., the following symptoms were present, in addition to the condition above described. The left lower extremity showed shortening of about two inches, eversion, grating about the false hip-joint, and partial flexion and abduction of the thigh, the left foot, when at rest, taking a position across the middle of the right leg. Under ether, the motions of the hip were free; but when the limb was forcibly straightened, the muscles of the anterior femoral region—the rectus and adductors—were thrown into prominence.

In the matter of diagnosis, Dr. Cheever remarked that the absence of any constitutional symptoms and of local signs, such as abscess and pain, would exclude disease of the hip. There was left, therefore, a chronic dislocation of the head of the femur upon the dorsum ilii, with rupture of the external slip of the Y ligament.

Dr. Cheever stated that there was a question between doing Mr. Adams's operation of section of the femur, followed by partial rotation of the shaft to bring it into line for reunion, and the tenotomy of the muscles which held the bone in malposition. He rejected the former; first, because there was no bony anchylosis; second, because of the attendant risks of abscess and other local troubles, a risk emphasized by the irritation resulting already from manipulation of the parts. He accordingly divided the tendons attached to the anterior superior and anterior inferior spines of the ilium (rectus, sartorius) and those arising from the ramus of the pubes (adductors). The limb was to be extended by weight for a month; and if section of the bone was then indicated, it could be done.

Dr. Thorndike performed Staphylorraphy in the case of a girl, aged eighteen years, with congenital cleft palate. The fissure involved the uvula, soft palate and palate bones.

Dr. Thorndike said that, preparatory to the present operation, he had a short time before divided the elevator muscles of the palate and the anterior and posterior pillars, so as to remove the tension on the parts and to allow of easier approximation of the refreshed edges; by this procedure, the uvula was paralyzed as to motion. The edges of the fissure were pared from above downward. An incision was made on each side through the muco-periosteal tissue of the roof of the mouth, and this tissue was raised from the bone. Finally, sutures were passed, uniting the edges of the fissure, beginning at the uvular part, and leaving a portion of the opening through the hard palate to be closed by a subsequent uranoplasty, when the other parts shall have become united and their nutrition established.

Dr. Cheever performed Resection in a case of Compound Fracture of both bones of the forearm in an adult. The fracture was a fortnight old; the bones were broken in the middle third, the compound opening being at the ulnar side in front. A burrowing abscess necessitated an exploration of the parts. No beginning of union of the bones was found, and they were denuded for an inch. The fractured ends were accordingly exposed and sawed off smoothly, shortening the forearm two inches. The part was then placed in a tin splint padded with oakum.

Other operations were—Tattooing of the Cornea, by Dr. Wadsworth; Amputation of a finger for circular-saw injury, removal of a small Fatty Tumor of the cheek, and opening of an Abscess of the Thigh, by Dr. Cheever.

During the previous week, four cases of accidents from circular saws were admitted to the hospital and were treated by Dr. Cheever. In all the cases, the fingers were cut and mangled in various directions. None were injured higher than the metacarpus. Wherever a joint was not opened, or a bone sawed through, the finger was kept on and an attempt made to save it. A circular amputation was done at the metacarpo-phalangeal joint, by cutting around the skin on a level with the web, and thus getting a cuff to cover the bone. The whole hand was placed on a splint, and treated with water dressing.

F. W. DRAPER.

Correspondence.

LETTER FROM VIENNA.

(From an occasional correspondent.)

VIENNA, February 20, 1874.

MESSRS. EDITORS,—Having reached this city on my European tour, I rejoiced to meet in these distant parts with an old acquaintance in the medical reading room of the General Hospital, as your ably edited and highly interesting JOURNAL presented itself modestly to my view on the table among the many German, French, Italian and Hungarian medical journals. The *Journal of Obstetrics*, edited by Dr. Dawson in New York, and your JOURNAL are the only two American periodicals I found here, and are read with great interest and delight by both Americans and Europeans understanding English. However, this joy alone of having found your estimable paper in this foreign city would not have induced me to express it to you in a letter, especially as we are, I believe, entire strangers to each other; but I thought a hint from me through your valuable JOURNAL to follow the example of the medical school of this city in establishing a medical reading room in connection with our medical colleges in the States, might be of some service to the young students in our country, who are not in a position to procure, out of their own means, costly books of reference, and have not the time to go a distance from college to some public or private library. We have in New York a Medical Journal and Library Association, but it is not connected with any college and costs $10 a year to each member. Here in Vienna, in the college building, or more properly speaking in the hospital building, where the lectures are being held, a medical library has been established in

this way: each of the professors contributed some books, pamphlets, magazines, &c., to it, and the hospital staff, consisting of about 100 members, contribute each 3 florins a year; added to this, were contributions from private physicians and others. Students of medicine pay twenty-five cents a month, and have the advantage of having a reading room near the lecture room, where they can usefully and pleasantly spend their spare hours.

Your last number received here contains, among others, an editorial on the injustice done by Congress to the Medical Staff of the Army by not removing the impossibility of being promoted, no matter what the officer's merits are. This unwise restriction tends to take away all ambition from young army surgeons to work on in the path of science, and also does great injustice to older surgeons who have sacrificed their best years in the service of their country, and have now for years taken back seats in regard to rank and pay, if compared with other staff officers of the engineers', quartermaster's, commissary, pay and inspector-general's departments. I have myself served as Assistant Surgeon U. S. Vols. for three years during the war, and I can appreciate the feelings of those professional brethren who have to wait ten to fifteen years until they get promoted to a majority, or, if majors, see that their worldly career is ended. They may eat, drink and sleep for the rest of their days, and then die! The word "*Excelsior*" is stricken out of their vocabulary. Thus far and no farther, says the edict of Congress! Once raised to the exalted position of majors, they remain majors the rest of their days, until death removes them to that bourne whence no traveller ever returns. I know several surgeons who have served thirty and forty years in the army and are only majors. Dr. Sloan, Dr. Cuyler, both friends of mine, have each rendered faithful, efficient and valuable services, and are yet majors, their brevets of brigadier generals having been annulled by act of Congress; if I mistake not, all brevet ranks have been abolished. The lamented Dr. Madison Mills, an ornament to the profession and the service, beloved and esteemed by all who knew him, died a major. I could add a dozen more names who would deserve a major-general's rank and pay in the army, but I do not wish to overburden this probably uninteresting epistle by further illustrations. I hope you will agitate this question in your valuable JOURNAL, and others will follow your example. The State, County, and in fact all, medical societies in the United States should urge this measure of proper pay and rank to Congress to the utmost of their influence, without relinquishing their efforts until justice is done.

Yesterday, we celebrated here the seventieth birthday of Prof. Carl Rokitansky, the founder of pathological anatomy, whose reputation for knowledge and science, whose genius and talent are known from one end of the globe to the other. All the European Universities bowed and did homage to the great savant; crowned heads sent him decorations and congratulations. The several thousand students of this University brought him a torchlight procession in spite of the inclemency of the weather. Music and song greeted his ears from hundreds of instruments and thousands of throats. The banquet, given in his honor at the Cursaal in the Stadtpark, was filled with the ornaments of society. Nobility of birth, of accumulated wealth, the representatives of art, science and talent, and genius in all its splendor vied with each other to fill the heart of the hero of the day with joy. May Rokitansky live long and prosper! RUDOLPH TAUSZKY.

LETTER FROM RUSTICUS.

DOWN EAST, March, 1874.

MESSRS. EDITORS,—How in the world do you manage to get along with your business in cities as general practitioners? How do your patients find out what man or woman to apply to when they are sick? When I began to practise medicine, I could pull teeth, amputate a leg, make gruel, pick a speck of gravel out of an eye, pass a catheter, wash ears, turn a baby, give an injection, and so on to the end of the chapter. I haven't forgotten how

to do any of these things yet, and in the trunk that accompanies me in my rounds I carry all the tools that are needed for doing them. From the way city people talk about you city doctors, it is pretty evident that they've got no great respect for your proficiency. When I was in town, I told my landlady I was going to see my old friend G., and get him to wash out some wax from my ear. "Its no use; he only treats lungs." "Well, there's Dr. H. close by." "He can't do it. Bowels is his business." "Dr. I. then." "He can't do it. Nothing but eyes goes to his office." "Can Dr. K. do what I want?" "Why, bless your soul, Doctor, what are you thinking of? Don't you know that he only has ladies under his care?" And so it went on, till I began to think that each organ must have its particular operator, and I wondered how we managed to treat patients here? Some how, they get well.

I should think you'd have a new class of practitioners, whose business it should be to call in patients and decide what particular class of specialist to send for in particular cases. If you can make it fashionable, it will give some new ignoramus an opportunity to get a living that he'll never earn in any other way.

One man, there's no doubt, acquires a certain knack at doing certain things in a certain line; and if he does, that kind of business will necessarily fall into his hands, whether it be in Boston or Down East. But to start with the determination to treat one organ alone, unless it is the eye or the ear, which requires delicacy of touch, it is all nonsense. Of all the humbugs in the way of special practitioners, I know of none quite equal to those who pay exclusive attention to the diseases of those two neighboring passages. I don't mean the nose and mouth. Piles! Fistulas! Ulceration of the uterus! We occasionally have some travelling advertiser, at the tavern, who is "to be in town on the 17th of May and stay a week." He takes away a few dollars and leaves a few bottles, and no great harm is done. But then some faint, pale-looking individual who spends a few weeks in summer with us, gets hold of Miss Nancy, who has become anæmic from living on doughnuts and pies, and makes her think that her pale face comes from an ulcer on the womb, and nobody can cure it but Dr. Speculum. Up to Boston or New York to Dr. Speculum! She never had leucorrhœa; never had anything but dyspepsia, and wouldn't have had that if she'd only let cake and pie alone. But the "mouth of the womb is ulcerated," and caustic is rammed into it, and a sound is jammed into it, and injections are squirted at it, and Miss Nancy comes home with the whites, which she never had before, and Dr. Speculum has a bill of a hundred dollars for finding an ulcer that never existed, and a uterus which didn't lie exactly at the angle which his theory thought it ought to.

Then there was Tom Tibia. He had an ulcer on his shin. I couldn't make him lie still, or he would have got well. He went up to Boston with a schooner load of wood. Somebody got hold of him and took him to Dr. Cutis, a great "ulcer doctor." Tom came home well. "How happened you to get well, Tom?" "Why, when the Doctor looked at it he bust into tears, and said, 'You've come just in time to save your leg, *I think*. Twenty-four hours more and it would have been gone.' He put me on my bed and gave me a wash for it, and in two weeks it all healed up!"

Archibald Ames went to Boston, too. He had what he called a *thistelo*. The fact is, he had piles and pin worms; he'd scratched himself so much for the last that he'd made the first bleed, and there was always an oozing of pus about the anus. He didn't have any fistula, and the piles were of no great account. But he fell into the hands of one your specialists. He scratches and bleeds just the same as he did before Dr. Rectum took hold of him. But he's been under the care of that distinguished gentleman, and has paid him fifty dollars, for what we could have cured any time, if he'd only follow up the elixir pro. for a few days, as I long ago advised him. But then, he wouldn't have had that glass speculum put in there, and he wouldn't have heard so much talk about the rectum and mucous membrane and internal sphincter, and hæmorrhoids; and he wouldn't have paid out that fifty dollars. Cheap enough—for those who like it!

I think you're rather running this specialty business into the ground, though. It is getting so bad, that some of your men can't see a strabismus belonging to a brain disease, that they don't want to operate; nor a leucorrhœa caused by straying pin worms, that they don't want to poke a caustic into the uterus; nor a sore glans penis, caused by want of soap and water under the frænum, that they don't suspect syphilis, and give mercury. You're overdoing it, I think. Yours truly, RUSTICUS.

BROMIDE OF POTASSIUM IN REFLEX VOMITING.

GEORGETOWN, MASS., February 24, 1874.

MESSRS. EDITORS,—In the course of reading the January number of the *American Journal of the Medical Sciences*, I came across this paragraph, clipped from the *Revue Médicale*, Nov. 23, 1873:—

"Dr. Girabetti has successfully treated the obstinate vomiting of pregnancy by enemata of bromide of potassium given in increasing doses, commencing with six grammes the first day, giving eight grammes the second, and ten grammes the third; after which the dose is lessened in proportion to the effect produced. In one case, the vomitings were arrested by the treatment in three days."

Having used the identical course of treatment for a long time, I referred to my note-book, and found the following:—

Dec. 9th, 1871.—I am fully persuaded that the bromide is of the greatest utility in reflex vomiting, as that of pregnancy; and that this may be accomplished by enemata is well shown by the following cases (and I may say by all my subsequent cases).

Mrs. G. R. has vomited for seven days and nights incessantly, to the degree that even pellets of ice are violently rejected; knowing well the cause, I was forced to believe that if the reflex action of the spinal cord might be blunted, I could hope for an amelioration of the symptoms, which had now become quite urgent. Bromide of potassium suggested itself, but the utter impossibility of giving it by the mouth was only too apparent. I was forced to give it by the rectum, and with the following result. Dissolving two drachms in eight ounces of water, I gave one half at 7, P.M., and repeated the enema by using one half of the remainder, giving ninety grains in one hour. The patient vomited in ten minutes after the first dose, and never afterwards.

In four cases I have used this remedy, but not always by rectum, and have found it of great benefit, when, as in the first cases, all the best recommended remedies had failed. Other practitioners of my acquaintance have had good success with it in similar cases. I trust I am not too sanguine in considering it an important application of a valuable remedy. Before I had recourse to this, it may be well to state I had used the following drugs:—oxalate of cerium, subnitrate of bismuth, subcutaneous injections of morphia and atropia, and counter-irritation of various sorts, without avail.

RALPH C. HUSE, M.D.

CASSELLA'S THERMOMETER.

MEDFORD, Mass., March 9, 1874.

MESSRS. EDITORS,—Having experienced the same annoyance from the washing out of the blacking in the markings on my Casella thermometer scale complained of by "W." in your last issue, I have used shoemaker's blackball. A few rubs, with the thermometer lying on a smooth, hard surface, fills the markings, and the instrument looks as good as new; two or three days' use will, however, render a repetition necessary. Anything that will color the markings and be insoluble in the secretions of the body and the necessary amount of soap and water, will be a great addition to this invaluable companion. Yours truly, J. HEDENBERG.

Medical Miscellany.

An International Pharmaceutical Congress will be held at St. Petersburgh in August, 1874.

A Case of Bromo-Hyperidrosis of the Feet has been recently reported by Dr. Grimshaw, of Dublin, in which the disease was induced by wearing vulcanized India-rubber soled slippers.

At the University of Berne, there are, at present, twenty-five lady medical students, among whom are twenty-two of the Russian women, whom the last ukase forced to leave Zurich.—*Lancet.*

A Livingstone Scholarship is to be instituted at Charing-cross Hospital as a memorial of the great traveller who acquired a part of his medical education there.—*Lancet.*

For a Corn on the Toe.—Take a black snaile and roast him well in a white, wet cloth; bruise him and lay him hot to the Corn, and it will take it away in a very short time.—*Culpeper*, 1656.

Dr. H. I. Bowditch will conclude his paper before the Boylston Medical Society, on "The History and present Prospects of Thoracentesis," tomorrow (Friday) evening, at 8 o'clock, at the Medical College. Physicians and others interested are invited.

Cremation of the Dead.—The Communal Council of Vienna has adopted, by a large majority, the proposal of one of its members to establish in the cemetery the necessary apparatus for cremation, the use of which will be optional and open to all. A similar proposition is now being agitated at Grutz, which contains a population of 100,000.

A New Dental Hospital.—The new Dental Hospital, situated in Leicester Square, London, was formally opened upon the 2d of March, upon which occasion an address was delivered by Edward Sercombe, Esq., the President of the Odontological Society.

New Sanitarium.—Certain advocates of the *blood cure* have decided to erect a large building in Brighton in the vicinity of the slaughter houses, to which invalids may resort for this special treatment. *Gore Hall* is suggested as the most appropriate name for the new institution.

The prize of 500 *lire* ($100) offered by the directors of *Lo Sperimentale* for the best paper published in that journal during the year 1873, has been awarded by the Medico-Physical Society of Florence to Professor Filippo Pacini, for his essay on "The Phenomena of Osmosis and the Functions of Absorption in the Animal Organism."—*The British Medical Journal.*

Emetics by Subcutaneous Injection.—The only therapeutic agents as yet known which are capable of being used as emetics by subcutaneous injection are *emetin* and *apomorphia.* The dose of the former is one-thirtieth of a grain, given in acidulated water. Apomorphia, which is morphia less an atom of water, is a speedy, safe and pleasant emetic, never acting as a local irritant. The dose (hypodermically) is from .046 to .169 of a grain.

Discouraging Emotional Insanity.—A bill to discourage emotional insanity with a homicidal tendency has been introduced into the Ohio Legislature. It provides that, where insanity is set up as the defence in cases of killing, the prisoner shall undergo a preliminary trial to decide upon the justice of his plea, and the exact measure of his accountability. If he be adjudged sane, trial will, of course, proceed in the ordinary form; but if he be found insane he is at once committed to a lunatic asylum. Pending his incarceration therein, the indictment still hangs over him, and if he recovers his senses he will undergo trial.—*Medical and Surgical Reporter.*

Rosbach, of Wurtzburg, does not ascribe Addison's malady entirely to the morbid condition of the supra-renal capsules. In his paper on the subject, in *Virchow's Archiv*, he considers it as a neurosis of which the pathological anatomy has yet to be determined. The entire nervous system appears to be implicated, coupled, indeed, with anæmia and extreme weakness, serious psychical derangement, and darkening of the skin.—*The Doctor.*

Poisoning by Chloral.—Dr. J. M. Winn reports a case of poisoning by this drug, the patient being a young woman who was in the habit of using a syrup of chloral, without medical advice. On the occasion in question, she took seven teaspoonsful, equal to seventy grains, to relieve a headache. The syrup was purchased of a druggist who sold it as a domestic remedy. Dr. Winn deplores the impunity with which apothecaries sell such drugs.—*Lancet.*

Law and Medicine.—Smart young limbs of the law take great delight in puzzling a medical witness when he gets on the stand. One such was cross-examining the celebrated French chemist Orfila, and put him the question whether he could state the precise amount of arsenic requisite to kill a fly. "Certainly," replied the expert; "but I must know beforehand the age of the fly, its sex, its temperament, its condition, and habits of body, whether married or single, widow or maiden, widower or bachelor."—*Medical and Surgical Reporter.*

Influence of the Soil on the Development of Intermittent Fevers.—A paper was lately read before the French Academy of Science on the influence of the soil in the development of intermittent fevers, and of the danger of turning up the earth in large cities. In support of his views, the writer adverted to the fact that, in 1731, after a succession of unusually dry seasons, the bed of the Seine was considerably lowered, and a great number of plants, which were lying in a state of putrefaction on the banks of the river, exhaled a fœtid odor; nevertheless, there was not a single case of intermittent or other so-called malarious fever observed. In 1811, while the canal St. Martin was being dug, and in 1840, when the present fortifications were being constructed, malarious fevers were rife, which were attributed to the emanations produced by the turning up of the soil. An unusual occurrence of these fevers prevailed also in epidemic form in certain quarters of Paris during the formation of the boulevards and avenues which intersect this great city.—*Irish Hospital Gazette.*

Errata.—In line 33, page 302, of the last Journal, for "left" read *right;* and in line 13, page 303, for "right" read *left.* Page 310, eighth line from bottom, for "usually" read *sometimes.*

Mortality in Massachusetts.—*Deaths in fifteen Cities and Towns for the week ending March* 21, 1874.

Boston, 133; Worcester, 22; Lowell, 24; Milford, 5; Chelsea, 6; Cambridge, 13; Salem, 8; Springfield, 7; Lynn, 10; Gloucester, 2; Fitchburg, 3; Taunton, 3; Newburyport, 6; Somerville, 7; Fall River, 11. Total, 260.

Prevalent Diseases.—Consumption, 55; scarlet fever, 21; pneumonia, 19.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, March 28th. 153. Males, 77; females, 76. Accident, 2; abscess, 1; apoplexy, 3; anæmia, 1; inflammation of the bowels, 1; disease of the bowels, 2; bronchitis, 5; inflammation of the brain, 1; congestion of the brain, 4; disease of the brain, 8; burned, 1; cancer, 2; cerebro-spinal meningitis, 1; cholera infantum, 1; cyanosis, 1; consumption, 30; convulsions, 6; croup, 1; debility, 1; dropsy of the brain, 1; epilepsy, 2; scarlet fever, 14; typhoid fever, 2; gastritis, 1; disease of the heart, 6; hernia, 1; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 3; inflammation of the lungs, 12; marasmus, 14; old age, 3; paralysis, 1; pleurisy, 1; premature birth, 2; pyæmia, 1; pulmonary apoplexy, 1; puerperal disease, 3; rheumatism, 1; spina bifida, 1; whooping cough, 3.

Under 5 years of age, 66; between 5 and 20 years, 17; between 20 and 40 years, 32; between 40 and 60 years, 17; over 60 years, 21. Born in the United States, 118; Ireland 21; other places, 14.

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Original Communications.

CASES OF OVARIOTOMY.

By JOHN HOMANS, M.D., Boston.

Surgeon to Carney Hospital and to the Children's Hospital.

CASE III.—*Double Ovariotomy; Cystic Papilloma of both Ovaries; Death in forty-six hours; Autopsy.*—In March, 1873, I saw Mrs. B., in consultation with Dr. D. H. Hayden. She was a married woman, thirty-three years of age, rather pale, and considerably emaciated. She had not been in good health for many years, but the abdominal enlargement was only of six months' duration; her abdomen was considerably distended with fluid, but whether this was free in the abdominal cavity or contained in a cyst could not be determined. She had never borne children. The girth at the umbilical level was thirty inches. There was a slight deviation of the uterus towards the left, and the sound entered only half an inch. Her digestion was good, but she suffered from flatulence and diarrhœa. The urine was normal. I saw her from time to time for several months, and on November 14th, I tapped with a small trocar and canula. The umbilical girth on that day was thirty-seven and a half inches, and she was suffering considerably from dyspnœa when she moved about. Eighteen pints of claret-colored fluid were removed. As the fluid lessened during the tapping, the abdomen became quite tender; enough examination, however, was borne to reveal the presence of a hard, flattened tumor beneath the umbilicus. The red color of the fluid was found to be due to the presence of red blood globules; many white corpuscles were also found. A soft coagulum, not adherent, separated after twenty-four hours, and the supernatant fluid was a straw-colored serum, slightly sticky. The blood in the fluid, and the very great tenderness of the tumor suggested that the growth might be malignant.

The patient was quite feeble for a few days after the tapping, but soon got about, and in the course of a few weeks was looking much better than before On January 27, 1874, the abdomen had again become full, and the umbilical girth was thirty-nine inches. She was again tapped; Dr. Gilman Kimball, Dr. William G. Wheeler, Dr. Hayden and myself were present. The fluid drawn off was of the same character as before, and a thorough examination was made after the fluid had run out. The diagnosis, however, was not made positive; but we could say that there was an elastic tumor, thick and movable, running around the posterior and left side of the pelvic brim. This tumor was not intimately connected with the uterus and could be moved independently of it. I considered it to be an emptied, ovarian cyst, with a thick wall.

The patient resolved that an operation should be done to remove the tumor, which was evidently the cause of her sufferings. In the course of a week, she was up and about, and feeling very well; her increase in size, however, was very rapid.

Abdominal section was performed on February 17th. Drs. Gilman Kimball, Wheeler, Hayden, Mason and Chadwick were present. Ether was administered, and an incision, about five inches long, was made, from a point one inch below the umbilicus to the pubes. When the peritoneum was divided, a gush of clear serum took place (there being no blood in the fluid this time), and a cauliflower-like growth, partly white and partly pink, stood up in the middle of the abdominal cavity. At first sight, it seemed as if the operation had better be abandoned. However, on passing the hand around the growth, it was found that the adhesions to the neighboring parts were very slight, and that there were two tumors, each with a well-defined pedicle. The tumor of the left ovary was the larger, and contained a cyst the size of a hen's egg, with the same papillary growth on its interior wall. A ligature was tied around its pedicle, just outside the Fallopian tube. The pedicle of the right ovary was easily clamped without traction on the uterus. Both tumors were quite friable, and masses of various sizes, from that of an English walnut to that of a pea, were broken off during the necessary handling. These masses were felt for and removed, the cavity of the abdomen was cleaned with new sponges, and a drainage tube was passed into the vagina, by the side of the uterus, and brought out through the wound. My reason for using the drainage tube was that as the peritoneum had been for a year or more secreting fluid, it would continue to do so for some time longer, and that this fluid could run off more easily through the vagina than through the abdominal wall. The patient's pulse was feeble throughout the operation. Deep, silver-wire sutures closed the wound. No vessels were tied.

Five hours after the operation, there was considerable pain, and some nausea and retching. The pain was somewhat relieved by passing the catheter and emptying the bladder. An eighth of a grain of morphia was given. It is sufficient to say that she was very uncomfortable till her death; the retching continued, her pulse rose to 120, 140 and 160, and became more and more feeble. She took champagne and various other stimulants, but nothing was retained in the stomach very long, although milk was borne better than anything else. On the 19th, dark, offensive fluid flowed from the wound around the clamp, and also slightly through the drainage tube. Death took place forty-six hours after the operation.

An autopsy was made twenty-four hours later. The abdominal cavity only was examined. On removing the sutures, pus was seen in and among the muscles in the track of the wound. The incision through the peritoneum had united, except at the lower angle, where the pedicle, ligature and drainage tube came out. The peritoneum was injected and ecchymotic. There were about four pints of dark, bloody, offensive serum in the abdominal cavity. The coils of the intestine were glued together by a slight adhesion, but there was no lymph or pus. Both ovaries had been removed. Another cyst was found in the right broad ligament, about the size of a small almond nut; on section, it was found to have papillary growths on its interior wall like those removed at the time of the operation. All the tissues

in the pelvis were deeply stained. The uterus was normal and healthy; a director easily passed into its cavity.

The tumors were given to Dr. R. H. Fitz, who was kind enough to examine them, and the following is his description of them:—"Papilloma of both ovaries; the one forming a mass of the volume of the two fists, the other somewhat smaller. Both soft, cauliflower-like, the surface made up of villi, easily separated from each other, covered with a somewhat viscid substance, resembling the white of an egg. The larger mass was reddish-gray in color, moderately translucent; the smaller is of pale-yellow color, and opaque. The first presented merely a confused collection of villi, attached to a small, dense, fibrous base; while the smaller contained one or more cysts, from the interior of which groups of villi projected. Under the microscope, the villi were seen to be simple and compound, covered with a layer of cylindrical epithelium. The epithelial surface was fatty degenerated; in the smaller tumor, giving rise to the opacity. The red color of the larger growth was due to the injected capillary loops, readily seen in the interior of the papillæ. A reflected cyst wall was not found in connection with the larger tumor."

I think it is evident, from the descriptions of the tumors given above, by Dr. Fitz and myself, that the large masses had broken through their original cyst walls, from which they grew, probably, when they were quite small, and had since grown freely in the abdominal cavity.

CASES IN OBSTETRIC PRACTICE.

By E. E. Graves, M.D., Boscawen, N. H.

I.—Mrs. R. I., aged 25, multipara, was seized with a severe convulsion at 3, P.M., April 1, 1873, being far advanced in the sixth month of pregnancy, and never became conscious before her death, which occurred at 8, P.M. After the spasms ceased, she would lie a few minutes in an unconscious condition, breathing stertorously, and then go into another. The os uteri, on examination, was found situated high in the pelvis, and not in the least dilated. There were no premonitory symptoms of an attack, with the exception of a slight pain in the hypogastric region during the forenoon. She had been as well as usual, with the exception of a severe diarrhœa for a few days. Urine not examined.

II.—Mrs. E. P., aged 30, multipara, whose former confinements were normal, was delivered of a female child at 12½, A.M., after being in labor three or four hours. The placenta was expelled soon after. Flowing not very profuse. Everything looking favorably, I left at 2½ o'clock. About 4, A.M., I was summoned hastily, when I found her in a severe convulsion, and immediately administered chloroform until the spasm was relieved. She became conscious after fifteen or twenty minutes, and remained so until 7, A.M., when she had another convulsion. About 9, she had another, being partially under the influence of chloroform at the time. There were no more until the next day, when she had two of less severity. She had no more until the 19th, when she had three. The next morning, she had one, and, later in the day, one, when I took twelve ounces of blood from the arm,

after which there were no marked spasms. As soon as there were any indications of the approach of one, shown by rolling of the eyes, drawing back of the head, &c., chloroform was administered and the apparent convulsion controlled. The pulse was never very full or strong. The urine was passed naturally until the 22d, eight days after confinement, when I was obliged to use the catheter three or four times. *It contained no albumen at any time.* Ice was kept on the head from the first, and seemed to afford great relief. Tonics and stimulants were given as she could bear them, and she made a slow but perfect recovery. Although she seemed perfectly conscious of everything at the time between the convulsions, she remembers nothing that happened for a space of three weeks. There was no lacteal secretion whatever.

III.—Mrs. M., primipara, aged 24, began to flow at 6, A.M., July 14, being six months advanced in pregnancy. On examination, I found the os uteri dilated quite fully, although there had been no pain of any account. A small, dead child was presenting, dorso-posteriorly. I decided to wait a few hours for more severe pains, as flowing was not profuse.

12, M.—Pains quite severe for two hours, but no progress has been made, although the parts are dilated sufficiently to pass a child much larger than the one now present.

5, P.M.—The patient has had but little pain or flowing. I administered two drachms of fluid extract of ergot, in divided doses, but without effect.

July 15th, 5, A.M.—Patient rested quite well, and has had but little pain or flowing during the night.

10, A.M.—Flowing badly. I administered ether, introduced my hand and brought down the feet, letting the breech remain in the os uteri. By administering ergot and kneading the fundus, contractions soon came on, and the child was removed. After a few minutes, I took up the cord, and on the slightest possible traction it separated, leaving the placenta in the uterus. I immediately administered ether, and, on introducing my hand, found the placenta adherent by its whole uterine surface. I succeeded in removing but a small part, as it very easily broke down under the fingers. I administered ten grains of tannin with one drachm of fluid extract of ergot, and introduced a large piece of ice into the vagina. I still kept my hand on the fundus, and this, with the ice, controlled the hæmorrhage considerably.

4, P.M.—Acetate of lead was given and the foot of the bed raised, to control the hæmorrhage, which was again becoming profuse.

8, P.M.—Had a chill of short duration, after which the pulse became very rapid and the flowing, which had not been profuse for the last three hours, became more abundant.

July 16th, 8, A.M.—Patient slept the latter part of the night. Not much flowing or pain.

12, M.—Very much exhausted. Pulse 150. Severe headache.

5, P.M.—Patient feeling much better than at noon; took some brandy during afternoon.

8, P.M.—Had a very severe chill, lasting nearly half an hour. Brandy being freely given and bottles of hot water placed around her, she rallied, and fell into a quiet sleep lasting an hour or more. On waking, brandy and quinine were given, and she slept the latter part of the night quite well. Now much flowing.

July 17th, 8, A.M.—Feels rested. Pulse 110. Took some milk and toast. Quinine and brandy to be given every hour.

12, M.—Headache. Some flowing, and an offensive discharge at times. Ice to head.

3½, P.M.—Some pain in back; on examination, the vagina was found filled with clots. I raised her up, and the clots passed out, relieving her very much. Not much flowing afterward, but a very offensive discharge. Vaginal injections of a weak solution of carbolic acid were ordered.

July 18th, 8, A.M.—Slept quite well last night. I raised her up to give an enema; while in this position, something passed from the vagina, which, on examination, proved to be the placenta. Abdomen quite tender on pressure.

July 19th, 10½, A.M.—Feeling much better, but very weak. Pulse 95.

6, P.M.—Feels quite comfortable. Not much tenderness in abdomen.

July 20th, 8, A.M.—Could not sleep last night on account of distressing dreams; had to be wakened every few minutes. Passed urine freely for first time, the catheter having been used before.

July 21st, 8, A.M.—Passed a good night. Sat up a few minutes this morning. Appetite good.

July 22d, 8, A.M.—Rested very well last night. Has but little lochial discharge. Womb cannot be felt above the pubes.

From this time she improved rapidly, but was troubled for some time with distressing dreams at night, causing her much annoyance.

One thing in this case was to me peculiar, namely, the small amount of pain, the womb seeming to contract insensibly.

IV.—Mrs. E., primipara, was taken in labor at 6½, A.M., August 15th. Everything progressed favorably until 10½, A.M., when she complained of a rumbling noise in her head and immediately went into a very severe convulsion. I immediately applied the forceps and the labor soon terminated. She continued to have convulsions at greater intervals for about fifteen hours, having during that time ten or twelve. Morphia and chloral were given in considerable quantities during this time, with the effect of finally controlling the convulsions, and she sleeping quietly the remainder of the night.

Aug. 16th, 7, A.M.—Restless and uneasy. Pulse 95. Twenty grains of chloral were given, when she soon went to sleep and remained quiet nearly two hours. Urine drawn with catheter.

9½, A.M.—Restless. Answers no questions, but swallows liquids when put into her mouth. Chloral again given.

12, M.—Restless; opens her eyes and stares wildly around. Pupils largely dilated. Pulse 85, and of medium fulness. Ten grains of chloral. Patient soon sleeping. Breathing rather labored.

3, P.M.—Roused up and turned on her side. When asked if she was in pain, she said, "No." I gave her five grains of chloral, and she soon slept again. Pupils very much contracted when sleeping. Pulse 80, regular and quite strong. Respiration 11. Catheter again used, and two pints of dark, offensive urine obtained. Has passed considerable offensive gas *per vaginam* at times nearly all day. Injections of warm carbolic-acid water used.

5¾, P.M.—Asleep and breathing easily. Respiration 13. Pulse 82. Pupils dilated more than at 3.

9, P.M.—A little restless again. Five grains of chloral given. Patient soon sleeping. Respiration 15. Pulse 84.

12, M.—Partially conscious. Has no pain. Some beef extract given. Five grains of chloral, followed by quiet sleep. Respiration 16. Pulse 80.

1¾, A.M.—Conscious. Beef extract given. While I was out of the room a few minutes, the nurse gave the patient some brandy, which brought up the pulse and set her rolling around the bed. Chloral was immediately given, and she soon became quiet and went to sleep.

5, A.M.—Conscious. Asks a great many questions. Chloral again given, and she soon became quiet.

From this time she improved rapidly. From the night before her confinement to nearly two weeks after, she remembers nothing. I was obliged to use the catheter for several days, the urine being dark and offensive, but *it contained no albumen at any time.*

V.—I was called, September 12th, to see Mrs. F., aged 25, multipara, six and a half months advanced in pregnancy. Her former pregnancies and confinements were normal. I found that, while sitting quietly in her chair, she had had a sudden gush of blood that had wet her underclothing, and had as suddenly stopped, unaccompanied with pain of any importance. I ordered her to remain quietly in bed, and as there had been no more flow at the end of a week, she got up and moved around a little with care. Several days after leaving the bed, she had another hæmorrhage as before, and was advised to remain perfectly quiet and not exert herself in the least. She continued to have the sudden gushes of blood, unaccompanied with pain. Her husband was advised in regard to the case and told what the result might be, as we had placenta prævia to encounter. I told him to summon me if any alarming hæmorrhage came on, or any labor pains.

Oct. 26th, I was summoned hastily, the messenger saying that the patient was having pains and flowing badly. I found, on arrival, that the woman had lost considerable blood, but that the pains had nearly subsided. On examination, I found the os uteri dilated sufficiently to admit the point of the finger, and I could feel the placenta fully covering the outlet. At the end of two hours, during which time she had but slight pain, a pain came on with an enormous gush of blood, when I immediately introduced my hand into the vagina, and, on reaching the os, found that the points of the fingers, in the shape of a cone, could just be introduced into it. By a steady pressure with a rotary motion, I succeeded in separating the placenta from its attachments sufficiently for me to introduce the hand, rupture the membranes, and bring down the feet of the child, so that the pressure of the breech arrested the hæmorrhage. As there were no pains for several minutes, I administered one drachm of the fluid extract of ergot, which in a short time excited contraction and the child was expelled, dead. By steady pressure on the fundus, the flowing was controlled after the placenta was expelled, which occurred very soon after the child was delivered. The woman appeared to be doing very well for half an hour after the delivery, when she became faint. The foot of the bed was raised, and stimulants were given every few minutes, but the attacks of syncope were frequent for several hours. The hand was kept on the fundus for two hours, for fear of hæmorrhage, but nothing unusual occur-

red. After the attacks of fainting ceased, the after-pains came on quite frequently, and did not entirely subside for seventy-two hours. There was no lacteal secretion in this, nor had there ever been after former confinements.

Everything progressed favorably, with the exception of a scanty lochial discharge, for two weeks, when she was suddenly seized with a very severe pain in both sterno-cleido mastoid muscles, causing her much suffering and rendering any movement of the head almost unbearable. After two or three days, the pain left the neck *suddenly*, and almost immediately there was severe pain in the left knee, which in a short time extended down the leg to the ankle, and was followed by swelling. A hypodermic injection of one sixth of a grain of sulphate of morphia in a short time entirely relieved the pain; but the swelling remained, and she was unable to extend the leg for several days. She remained nearly free from pain for four or five days, when it again suddenly appeared in the head and neck, and for two days resisted all remedies that could be applied. It then began to subside in the head and neck and appeared in the right leg, unaccompanied with swelling. She had very much improved at the end of four weeks (Nov. 28), when, without any warning, she was seized with a very severe chill, from which she rallied with difficulty, and her symptoms were very unfavorable for three or four days. An abscess in the pelvic region was suspected, but none could be found on examination. She began to rally again after five or six days, under the use of a generous diet, with tonics and stimulants. After improving so as to be able to sit up a short time, the flexor muscles of the left leg began to contract spasmodically, and at times they would remain so for a day or two. This passed off as she improved in strength, and she became able to walk a little in seven weeks after confinement. At the end of that time, she was again seized with pain in the calf of the left leg, accompanied by muscular contraction and some œdema about the ankle. All her unfavorable symptoms passed away gradually after this, and at the present time (Feb. 1) she is quite well, but not as strong as before her confinement.

Poisoning with Chloral.—At the late medical meeting at Wiesbaden, Dr. Levinstein reported the case of an adult who had attempted suicide with chloral. He took six drachms of the drug half an hour before his admission to the hospital. He lay in a profound sleep, with congested face, heavy breathing and pulse 100. Half an hour afterward, the face was livid, the veins distended, the respiration intermittent; temperature 39·5° C. Electricity was used and the breathing improved. In another half hour, there was general pallor, lachrymation, contracted pupils; the pulse was gone and the temperature was 32·9°. Three milligrammes of nitrate of strychnia were injected; followed by twitching in the neck, chest and muscles of the arms and legs and, later, by trismus. The heart began again to act and the temperature rose to 33·3°. In a few minutes, collapse again occurred and the circulation appeared to be entirely arrested. Another injection of strychnia (two milligrammes) was followed by reaction as before, the heart renewing its action. Galvanism was applied to restore the respiration. The patient remained in a perfectly anæsthetic state during nine hours; then sensation began slowly to return. After eighteen hours, the patient could be roused to take milk. He awoke, "quite refreshed," thirty-two hours after the ingestion of the chloral. No gastric disturbance or other ill effect followed.—*The Lancet.*

Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

[Concluded from p. 333.]

Anomalies of Tension in the Membrana Tympani.—In the preceding number, the incision of the posterior fold of the drum-membrane and tenotomy of the tensor tympani muscle were advised in those cases in which either the fold or the muscle acted as obstacles to the return of the drum-membrane to its natural position. Still a third variety of the same class of cases consists of those in which the fibres of the membrane have become either lengthened or atrophied by long-continued malposition, so that the whole membrane has become relaxed. Such a condition is formed where the drum-membrane has been pressed inwards for a long time, owing to closure of the Eustachian tube, or the presence of fluid in the tympanum. This relaxation may exist with an abnormal tension of the posterior fold, or with retraction of the tensor muscle, or without either of these complications. It can also be produced by a too continuous use of inflation in any of the three methods, Valsalva's, Politzer's, or the catheter.

To remedy this relaxation, and to produce a membrane tense enough to act as a good conductor, Politzer uses various methods for the different conditions of the membrane. Where the fibres have simply become lengthened from tension, and where, at the same time, the Eustachian tube has become, or has been made, freely passable to air, he advises air-tight closure of the external meatus continued for some time, in order that, by removing the pressure of the air on the external surface of the membrane, the fibres may recover their tone and restore the natural tension of the membrane. This closure he accomplishes by using a plug of cotton wool smeared with simple cerate, and leaving it in the meatus for twenty-four hours; then inserting another, and so continuing for about ten days. In those cases where an atrophy has taken place, the more common condition, he advises one or more incisions through the most relaxed portions of the membrane, in order that, by setting up a slight adhesive inflammation, the tension of the membrane may be increased. The operation requires to be repeated several times; and by its means the tension of the membrane and the hearing power can often be very much improved.

Gruber, also *(Wiener Medicinische Zeitung)*, advises several incisions of the membrane to remedy this relaxation, and is in the habit of making as many as three incisions at a sitting. These, he thinks, should be made at a more or less acute angle with the manubrium, in order that both the radial and the circular fibres may be divided, as he considers that the results are better than when only one of the layers has been divided.

The effect of the operation on the whole drum-membrane resembles that described some time ago by Politzer on relaxed cicatrices which he ruptured; the inflammation resulting from the rupture contracted the cicatrix and gave a fairly tense membrane, capable of transmitting vibrations, instead of a useless, relaxed tissue.

Connection of Purulent Inflammation of the Middle Ear with Facial Paralysis.—The close relation of the horizontal portion of the Fallopian canal, through which the facial nerve passes, with the tympanum is an anatomical fact; paralysis of that nerve, however, in connection with otorrhœa of the same side can no longer be considered, as formerly, a diagnostic symptom of caries of the petrous bone, since experience has shown that not only may there be extensive caries, but even the sheath of the nerve may be surrounded with pus without the existence of any paralysis. The anomaly of an opening of the Fallopian canal into the tympanum is also well recognized, and has been considered to explain the paralysis of the facial nerve occurring in young children suffering from a simple catarrh of the middle ear. Gruber, however *(Monatschrift)*, considers that, even without this anomalous opening into the tympanum, paralysis of the facial may result from a simple congestion of the middle ear in children, in whom all these parts are rich in bloodvessels. He is led to this conclusion from observing the rapidity with which such paralyses disappear as soon as the fever is over, a few hours often sufficing to restore the full function of the nerve, a time too short to allow of the absorption of an exudation. He mentions cases of nursing infants, with a febrile affection of the throat associated with inflammation of the middle ear, in whom facial paralysis appeared, and then disappeared immediately after a rupture of the membrana tympani and the discharge of pus; and in support of his view, that congestion alone may cause facial paralysis, quotes one case in which the inflammation in the middle ear subsided with the fever without the formation of pus, and in which facial paralysis lasted for twenty-four hours. Many of the so-called rheumatic paralyses which disappear in a very short time, under the simplest treatment, may belong to these cases of congestion.

The close connection of some facial paralyses with disease of the tympanum is seen in those cases in which an exudation exists in the tympanum, and in which the disappearance of this exudation is followed directly by a relief of the paralysis. In such cases, it is probable that there is an opening into the Fallopian canal. Gruber gives the history of such an one as follows: a tailor, 61 years old, after suffering for a few days with a cold in the head, began to have severe pain in the right ear, followed by deafness, fever, and, in a short time, by facial paralysis of the same side; examination, after ten days, showed the right tympanum filled with exudation, and a paracentesis evacuated considerable pus. Two days after, the paralysis was beginning to improve, and in five days more it had entirely disappeared, the tympanum having been kept free from secretion, in the meantime, by syringing and inflation. The inflammation in the tympanum lasted for nearly two months, and, during that time, whenever the secretion was allowed to collect in the cavity, the paralysis of the face returned in a degree, but was relieved as soon as the tympanum was cleared. This result was observed several times during the course of the disease.

Aneurism on the Auricle.—The only two diseases of the bloodvessels of the auricle hitherto described have been othæmatoma and nævus; but Chimani *(Archiv für Ohrenheilkunde)* describes an aneurismal varix which is of interest, on account of the severity of the symptoms and the result of the treatment. The patient, a man, was born with a small, aneurismal varix, on the left side of the head; it gradually in-

creased till, in his fiftieth year, it occupied nearly the whole half of the head, extending from the mastoid to the vertex, and from the temporal fossa to the occipital protuberance. A cirsoid aneurism of the temporal, the occipital and the posterior branches of the posterior auricular arteries was diagnosticated, and twenty injections of chloride of iron cured the disease on the scalp; but, soon after, the left auricle became of a higher temperature, swollen, and, in spots, pulsating; with these objective symptoms, were continuous headache, diminution of the hearing of that ear, continuous, very loud, subjective noises, heat, and a strong pulsation, resembling pounding, in the ear. These symptoms increased, gradually, for four years, at which time the auricle was found to have doubled in thickness, was of a pale red, and, in spots, of a bluish-red color. On the posterior surface, the anterior branch of the posterior auricular artery was enlarged and tortuous, forming two tumors, and on the anterior surface the two anterior auricular arteries were in the same condition, forming one tumor near the orifice of the meatus. The external meatus was narrowed, of a pale-red color, and the vessels on its upper wall enlarged; the drum-membrane dull, dark and congested.

The treatment already successfully used for the head was again undertaken with the ear; twelve drops of a solution of chloride of iron, neutralized with carbonate of soda, were injected subcutaneously on the posterior surface of the auricle, after compression of the posterior auricular and superior temporal arteries. The tumor immediately became dark blue, and lost its elasticity and pulsation; the pain from the injection was very severe, requiring morphine subcutaneously, and lasted thirty-six hours. A slough formed at the point of injection, came away, and the tumor was found to be much diminished. Two more injections, of five drops each, at considerable intervals, resulted in sloughing, and the tumor on the posterior surface had disappeared.

The tumor on the anterior surface was now injected, and went through the same process, complicated, however, by an inflammation of the drum-membrane; and, some time after, a second injection was required, on account of a slight pulsation remaining in the tumor. After the wounds resulting from the sloughs had healed, a small, hard mass, on the posterior surface, and another on the upper wall of the meatus were removed with the knife. The hearing became normal, the subjective noises and headache disappeared, and, one year afterward, the patient remained well. Considerable deformity of the auricle, however, continued.

Buck and Kipp *(Transactions of American Otological Society)* describe a new complication, which may result from the incision over the mastoid for the relief of periostitis. Each describes a case of circumscribed, false aneurism, from wounding the posterior auricular artery. In the first case, the periosteum was incised close to the auricle, and, five days after, a pulsating tumor appeared at the seat of the wound; in two days, the pulsation ceased, leaving a tumor the size of a hickory nut. An incision removed a firm clot of blood, the cavity was stuffed with lint, and the patient made a good recovery.

In the second case, on the fifth day after the incision, a profuse hæmorrhage occurred, followed, in six days, by a small, pulsating tumor, which ruptured, and gave rise to another hæmorrhage. The collapsed sac of a false aneurism was found in close connection with

the posterior auricular artery, and the artery was ligated below the aneurism. Two days after the operation, pleuro-pneumonia set in, which resulted fatally. It seems, however, to have been merely an accident, and not connected with the operation, as no metastatic abscesses could be discovered. The autopsy showed the mastoid to be rough, denuded, and quite soft.

Bibliographical Notices.

Tenth Annual Report of the Board of State Charities. 1874.

THE Board completes its first decade with this report, and naturally indulges in some retrospective statistics. The series of ten reports would no doubt repay careful study and analysis. As the statistics are quite voluminous, they have less direct interest for the medical profession than the reports of a younger organization, the State Board of Health; but we may profitably cull a few scraps of information for the use of JOURNAL readers.

The number of paupers receiving full support from towns and the State is no larger than in 1863, though the population of the State has increased twenty-five per cent. This results partly from the policy of the Board in sending such out of the State as are chargeable elsewhere, and partly from the absorption of some of this class in the army and the general prosperity following the war. Bounties, State aid and pensions diminish the number of persons requiring *partial* relief.

In 1864, the ratio of insane to other paupers was 1,600 to 6,300; in 1873, it was 2,000 to 5,400. The statistics tend to show "that we have checked general pauperism without being able to check that pauperism which grows out of insanity,"

The expense to the State of the last epidemic of smallpox was $200,000 for State paupers, of which Boston's share is $100,000. The gross expense to towns and State must have been over half a million. In Boston, there were 1,200 deaths, and half as many more elsewhere in the State. This expense might have been saved by entrusting the care of ports and the supervision of vaccination to the State Board of Health.

The present number of insane in the State exceeds 3,000, of which 2,000 are in hospitals, public and private. With the completion of the new hospitals contemplated at Worcester and Danvers, and the new wings at Taunton, 2,100 can be accommodated in the State hospitals alone. If further quarters are needed, the Board recommend another asylum for the incurable insane, like the one at Tewksbury, though better managed and supervised, we should infer, as they attribute the high mortality there to its unsanitary condition. The necessity for a hospital for the criminal insane is recognised by the Board, and has been urged on the legislature by a memorial from the superintendents. It is suggested that it should be in connection with either the new State prison or the new hospital at Danvers. Some of the parties at a recent hearing on this subject did not seem able to make a distinction between criminals who chance to become insane and insane persons who commit acts of violence. It would hardly be humane to commit a lady of refinement who might in an attack of melancholia commit a homicide on her infant, for instance, to a hospital for criminals. There might be with advantage two departments, one in connection with the prison and one at Danvers.

It will be seen by the above that the State has not adopted the Gheel or the cottage systems, which were so hastily endorsed three or four years ago by Dr. Howe. In fact the Board, in this report, express opinions on the subject entirely in harmony with those entertained by alienists in general.

We can take space for only one other subject. The Board recommend that cases of dipsomania and mania of alcoholism should not be retained in hospitals for the insane as a means of preventing a recurrence, but, after due

warning, should be committed to some penal institution. This is ignoring chronic alcoholism as a disease—a very unphysiological view, to say the least. The British Provinces are in advance of us on this point, as they have a law by which an habitual drunkard may be committed as irresponsible and dangerous on the certificate of two physicians, and detained, as insane persons are, in a suitable asylum.

There is a useful appendix to this Report, giving information concerning a large number of private charities all over the State. T. W. F.

The Spectroscope and its Applications. By J. NORMAN LOCKYER, F.R.S. Nature Series. London and New York: Macmillan & Co. 1873. Pp. 117.

THIS little book consists of three popular lectures delivered by the author at the Society of Arts in 1869, and is an admirable exposition of the mechanism of the instrument, and of its uses in the various sciences and in the arts and manufactures.

The first lecture contains a description of the instrument itself, and the history of its development up to the present time, with a clear explanation of the proportion of a prism and the laws of refraction of light. The various kinds of spectroscopes and the differences between the simple and direct vision spectroscopes are also spoken of in this lecture.

In the second lecture, the radiation and absorption of light, and the spectra produced by different kinds of substances, as solid, liquid and gaseous bodies, are treated of, and a very interesting description is given of the application of the spectroscope to the sun and stars, and of the means by which the composition of these bodies is determined.

In the third lecture, absorption of light is studied. In this connection, the absorption spectra of different liquids, especially of the blood and of wines, are mentioned. The absorbing power of gases and vapors, the causes of the Fraunhofer lines of the solar spectrum and the nature of the sun spots and the atmosphere of the sun are very clearly explained in this lecture.

The book is very completely illustrated, and the illustrations are admirably executed. The style of the author is pleasing, and the perusal of this little work of popular science will well repay the reader. E. S. W.

Report on the Immigration Service. By JOHN M. WOODWORTH, M.D., Supervising Surgeon U. S. Marine Hospital Service. 1873.

THIS pamphlet contains the results of the inspection of thirty vessels carrying over 8,000 passengers. It contains, also, the draught of a new law for the better carriage and protection of immigrant passengers. It seems from this report, however, that abuses are rapidly disappearing under the substitution of steamers for sailing vessels.

Lectures on the Clinical Uses of Electricity. Delivered in University College Hospital. By J. RUSSELL REYNOLDS, M.D., F.R.S. Philadelphia: Lindsay & Blakiston. 1874. Pp. 108.

WE can cordially recommend this little book to our readers as one which does well what it undertakes to do. It presupposes a fair knowledge of electrophysics on the part of the reader, and devotes to that branch of the subject only space enough for a good *résumé* of our knowledge, instead of dealing with it, as is so common with books nominally clinical, in a manner unedifying alike to the tyro and to the connoisseur.

Its principal fault is one almost inseparable from brevity, that of stating too strongly the side which it favors on the whole.

It is divided into five parts, headed respectively:—

I. General Remarks on the Clinical Uses of Electricity.

II. Forms of Electricity in Clinical Use.

III. Clinical Effects of Electricity.

IV. Diagnostic Uses of Electricity.

V. Therapeutical Uses of Electricity.

Like Dr. Tibbits, whose Handbook of Medical Electricity has already been reviewed in this JOURNAL, the author recommends the practice of charging the patient with free (static) electricity by means of a friction machine in the treatment of tremor, neuralgia, nervous aphonia and other nervous diseases. If then it is desirable to stimulate any particular part, as, in localized anæsthesia, the skin of the part, or, in aphonia, the throat, it is only necessary to draw sparks from the patient, who sits on an insulated stool, with the knuckle or with a brass knob.

In other respects, the book contains nothing absolutely new. J. J. P.

BOOKS AND PAMPHLETS RECEIVED.

Second Annual Report of the Dispensary for Skin Diseases. Boston: John Wilson & Son. 1874. Pp. 15.

Epidemic Diseases as dependent upon Meteorological Influences. By C. Sprinzig, M.D. St. Louis, Mo. 1874. Pp. 58.

An Inquiry concerning Priority in the Ligation of the Internal Carotid Artery. By William K. Bowling, M.D. Nashville, Tennessee. 1874. Pp. 20.

Dictionary of Elevations and Climatic Register of the United States. By J. M. Toner, M.D. New York: D. Van Nostrand. 1874. Pp. 93.

Second Annual Report of the State Board of Health of Minnesota. January, 1874. Pp. 98.

Transactions of the Wisconsin State Medical Society. 1873.

Catalogue of the Library of the Surgeon-General's Office, United States Army. Vol. III., Supplement. Washington, D. C.: Government Printing Office. 1874. Pp. 319.

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the Fiscal Year 1873. John M. Woodworth, M.D. Washington: Government Printing Office. 1873. Pp. 154.

Medical and Pharmaceutical Notes. By Edward R. Squibb, M.D. Philadelphia: Sherman & Co. 1874. Pp. 66.

THE KAK-KE.—We have received a late number of the *Japan Mail*, containing an interesting description, by Dr. Hoffman, of a species of endemic disease, known as *kak-ke*, peculiar to the Islands of Japan. The malady is said to possess considerable similarity to the Indian disease called *beri-beri*, and by the Dutch, and subsequently by other foreigners, was erroneously supposed to be identical with it. It makes its appearance regularly at the beginning of spring, first attacking only such persons as have suffered from it in preceding years, and on the approach of warm weather assails, also, those whom it had hitherto spared. The characteristic symptoms of the disease appear to be pain and stiffness in the lower extremities, accompanied by a diminution of sensibility and cutaneous œdema, beginning with the ankle joints and rapidly extending to the knees. In addition to these symptoms, a simultaneous occurrence of violent palpitation of the heart, to which is occasionally superadded endocarditis. The patient shows a distaste for all pursuits, and more especially those which demand exercise of intellect, while a general sense of drowsy weakness is observable. With the approach of cooler weather, the symptoms tend to disappear, even without treatment, and a slight weakness, often accompanied by anæmia, is all that now remains of the complaint; and this symptom disappears, also, in the course of the winter. In the more severe cases, however, the cure is deferred and is often incomplete, insensibility and palsy of different degrees remaining, occasionally even to the extent of complete paralysis of the upper and lower extremities, with atrophy of the part affected. In other cases, anæmia and general debility, with trembling of the limbs, remain to mark the passage of the disease.

Boston Medical and Surgical Journal.

Boston: Thursday, April 9, 1874.

A notice emanating from the City Hall, calling for sealed proposals for the removal of night-soil for a term of three years, from May 1, 1874, reminds us of a nuisance which has long prevailed in this metropolis, and which now calls imperatively for decided action on the part of our local Board of Health. This nuisance has its origin in the shameful method employed for handling night-soil. Notwithstanding the excellent facilities afforded by our extensive system of sewerage for the ready conveyance of all excrementa from households, there still exist, especially in the older and more thickly populated sections of the city, large numbers of privy vaults, the contents of which it is necessary to remove, generally, once in the course of each year. The work of removal has always been let out by contract to the lowest bidder, and, to this day, the process continues to be conducted in the same primitive method, which in the European capitals has long since been discarded, and which is only tolerable in a thinly-settled country.

The contents of these vaults are scooped up in buckets, poured into a cask, which, when filled, is carried, uncovered, through yards and alleys, and, finally, emptied into a wooden cart, the approach of which is announced at a distance, by the escaping odors. This intermittent stirring up and exposure of the contents of the open vaults, and the scattering of the matter in handling, combines to fill the air of the entire neighborhood with a pestilential effluvium, the noxious, unsanitary effects of which are too obvious to require enumeration. The evils of this antiquated system must be well known to the city officials, and we would respectfully submit to these gentlemen the necessity of instituting, without further delay, a fundamental change in this department. There is no reason why an adequate remedy for this nuisance should not at once be afforded, that the health and comfort of citizens may no longer be wantonly and needlessly attacked. This effective remedy consists in the adoption of that air-tight apparatus, which has for years been employed in the cities of Europe, and has, within a short time, been successfully introduced into the city of New York. This mechanical contrivance consists of an exhaust-pump, provided with two heads, and stationed upon a wagon; from this pump a hose is carried to the vault, where it is connected with a metal section, designed to be let down to the bottom of the vault. The other head of the pump is connected by means of a hose with an air-tight receiver. When the pump is set in motion, the contents of the vault

is passed, in accordance with the law which governs elastic fluids, through the hose to the receiver, without the slightest emanation of any foul odor. The method thus described is, indeed, so free from all offence that, as has been repeatedly demonstrated, it can be practised at any time of the day, and at all seasons of the year without causing the slightest inconvenience or annoyance to the neighborhood.

Although the subject is not an inviting one, we have deemed it our duty to call attention to this objectionable practice of our health department, and have indicated for its benefit, how an adequate reform may at once be instituted. The only real impediment to the introduction of the reform here suggested will consist in the opposition to be encountered from a small number who are pecuniarily interested in perpetuating the abuse of which we complain. It will be far from creditable to our authorities, if any ignorant or interested opposition is allowed to outweigh a just regard for the health and comfort of the community. Our confidence in the character, efficiency and influence of the Board of Health justifies the hope and belief that this important sanitary improvement will be no longer ignored, but that the leaking tub and bucket, and the rude and offensive cart of the nocturnal scavenger will soon have become a nuisance of the past.

An Irreducible Hernia containing a Bone.—Case reported to the Wapello County, Iowa, Medical Society, by A. C. Olney, M.D., Chillicothe, Iowa.

July 20th, 1873, 11 o'clock, A.M., in company with Dr. Hyatt, of Chillicothe, visited S. C—, a farmer, aged 75 years, suffering from an irreducible oblique inguinal hernia of the right side.

The history of the case is as follows, as it was learned from himself and his family: He had been troubled with this hernia about eight years, and up to Thursday, the 17th of July, had experienced but little inconvenience in reducing it. On that day, he had been working in the harvest field, and on going to a well of water near by he drank freely, whereupon he immediately discovered that a portion of the bowel had come down, and that the hernial sac was larger than common; and all efforts on the part of the old gentleman to reduce it failed; and the ordinary manipulations in reducing the hernia producing great pain, he desisted for the time. He, however, resumed his efforts at reduction, from time to time, with the same result, until these attempts became so painful that he was obliged to desist altogether.

The second day after this trouble commenced, he took some cathartic pills, and becoming very sick, vomited. From this time forward, three or four times in the twenty-four hours, he was troubled with stercoraceous vomiting.

Dr. Hyatt first saw him on Saturday, the 19th, about 7 o'clock, P.M. At this time, the parts about the hernial sac were inflamed, swollen and tender to the touch. The doctor made no attempt to reduce the hernia at this time; having applied cloths wet in cold water to the

inflamed parts, and administered a dose of morphine, he left him for the night. As said before, we saw him together on the morning of the 20th. At this time, the patient was placed on a lounge, and put under the influence of chloroform. Dr. Hyatt then examined the hernial sac, and discovered something unusual in its contents, and also made gentle attempts to reduce the hernia by the taxis. The doctor directed my attention to this foreign body, which I could distinctly feel above Poupart's ligament, and near the femoral ring. And here, it is worthy of remark, was the most protuberant part of the inflamed surface, making it appear like an ordinary *femoral hernia*. From considerations I will not now mention, we concluded not to operate, and let the patient come out from the influence of chloroform. We ordered an enema of warm water, prescribed a few powders of morphine, and then left him.

July (Monday) 21st, 6 o'clock, A.M., the patient died. Same day, 4 o'clock, P.M., ten hours after death, assisted by Dr. Hyatt, I made a post-mortem examination. Rigor mortis well marked. Made an incision through the integuments over the most prominent part of the tumor, parallel with the median line, about three inches in length. Then dissecting down carefully upon Poupart's ligament, and in the direction of the femoral ring, we came in contact with the smaller end of the bone, which was slender and two inches long.

Pushing aside the integuments, the superficial fascia, intercolumnar fascia, cremaster muscle, and transversalis fascia (these being agglutinated together by inflammation), exposed the peritoneal sac. About one-half of the smaller end of this bone was protruding from the sac. The bone was lying above Poupart's ligament, and pointing in the direction of the femoral ring. We then cut into the peritoneal sac, disengaged the bone from the bowel, which was then readily reduced. The bowel was not strangulated, but rendered irreducible by being pierced or transfixed, and held in position by the bone. There was considerable peritonitis; the bowel was but little inflamed. But in the neighborhood of the femoral ring, to the right of the hernial sac, were considerable inflammation, serous infiltration, discoloration of the skin, and swelling.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, March 25 and 28, 1874.)

OPERATIONS were performed in the following cases:—Tumor of Neck, Caries, Crushed Foot, Sub-lingual Tumor, Recurrent Epulis, Deviated Septum Nasi, Compound Comminuted Fracture of Elbow-joint, Spermatocele, Railroad Injury of Foot.

Tumor of Neck—of one year's growth: firm, painless, movable, lobulated, the size of a hen's egg, involving the anterior edge of the trapezius muscle, and located in the superior portion of the posterior cervical triangle; occurring in a woman thirty-one years old, subject to epilepsy and hysteria. The operation consisted in its enucleation from the trapezius muscle, in which it was developed and in the structure of which it was infiltrated. On section, the cut surfaces presented a firm stroma of connective tissue, that glistened like tendon and enclosed a softer, pinkish colored growth. Under the microscope,

"the structure was that of a fibroma, with a very considerable amount of cells. It apparently proceeded from the fascia; at all events, was intimately connected with it, and the advance took place through its medium. It more resembled the multilocular form of Virchow."

Caries—of the os calcis in a male adult, following an old railroad injury to the ankle. A fistulous opening on the inner side of the ankle communicated with denuded bone; this was enlarged, and the diseased bone removed by Dr. Clark with a gouge.

Crushed Foot.—Compound comminuted fractures of the tarsal, metatarsal and phalangeal bones of the foot, in a sailor thirty-six years old; the injury happened during a collision at sea, with an iceberg, two weeks before admission to the hospital. The wound had commenced to granulate, and his general condition warranted an attempt to save the limb; some fragments of bone and sloughs alone requiring removal. Within a week, an extension of the inflammation and the burrowing of matter have rendered the removal of the foot necessary. Soupart's amputation at the ankle-joint was performed. Attention was called to the importance of leaving the posterior tibial artery unwounded in its whole length, to provide for the nutrition of the flap. On examination of the foot, the tarsal bones were found separated, and pus had gravitated downward under the plantar fascia to the heel and burrowed along the peroneal tendons.

Sub-lingual Tumor—in a man seventy-three years old; of gradual growth; unaccompanied with pain; one year's duration; the size of an English walnut; situated under the tongue; to be felt within the mouth, and from the outside in the submaxillary triangle. From the probability of troublesome hæmorrhage, it was thought judicious to attack the tumor from the outside. This was done by a curved incision just above the digastric muscle, through the skin and platysma; the facial artery and anterior jugular vein were tied, cut and turned one side to make room for the deeper dissection; the submaxillary gland was raised and the deep fascia opened. The operator then passed his finger into the mouth and pressed the tumor down; it was seized with double-hook forceps, the deeper attachments cautiously divided, and its removal accomplished. Under the microscope, the growth proved to be a lympho-sarcoma.

Recurrent Epulis—in a boy six years old. The disease, which was of the size of a large white bean, was removed by making a section of the alveolar process on each side and above the growth with the cutting forceps.

Deviated Septum Nasi—in a boy ten years old. Straightened by Dr. Clark with polypus forceps.

Compound Comminuted Fracture of Elbow-joint—in a man fifty-six years old, caused by a mass of rock, weighing about three tons, falling on the outer side of the elbow. There was a superficial wound on the inner side of the forearm and a deep one on its outer side, attended by extensive muscular injury, and communicating with the interior of the joint. The inflammatory processes which would inevitably follow such a laceration of the muscles and comminution of the bones, if considered in connection with the patient's age, were thought to demand either excision of the entire joint or amputation of the arm. The former being decided upon, the articulation was excised by a single straight incision. The head of the radius was found comminuted by a stellate fracture and the external condyle detached from the shaft of the humerus. All the loose fragments and bruised muscular tissue were removed; the wound was then closed by sutures, and the arm placed on an internal angular splint.

Spermatocele—in a man thirty-five years old. Six weeks ago, the tumor was tapped and evacuated. The sac had again filled to its original size; undoubtedly in part owing to an extravasation of blood into the sac, which happened after the first operation. The sac was punctured, and six ounces of a coffee-colored fluid withdrawn, quite different in appearance from that obtained at the first operation, which was milky and contained spermatozoa.

Railroad Injury of Foot—in a man forty-eight years old. There were compound comminuted fractures of the phalangeal bones and extensive lace-

rations of the soft parts on the dorsum and outer side of the foot. Soupart's amputation at the ankle-joint was performed. H. H. A. BEACH.

BOSTON CITY HOSPITAL.

LAST Friday, April 3d, Dr Williams performed Enucleation of the Eyeball in the case of an adult. There had been loss of sight during the past year; and, a few months ago, attacks of pain in the eye came on at short intervals. There was no history of an injury to the eye. On inspection, the pupil was found to be clouded, the opaque lens pressing forward upon the cornea, carrying the iris before it. The cornea and ciliary region appeared distended, but the enlargement of the globe did not involve the posterior parts. Dr. Williams stated that the disorganization of the anterior portions appeared to depend on the forward displacement of the lens, and not on the growth of a tumor, such as cancer, within the eye. The repeated attacks of pain, and the danger of sympathetic disease in the other eye, indicated the removal of the affected organ.

When the globe had been removed, it was opened; and it was found that, in addition to extensive disorganization of the anterior portions, a tumor occupied the posterior part, having its broad base near the optic disc, and projecting, cone-shaped, through the vitreous, so that the apex reached the lens without pressing it forward. The structure of the growth was to be determined by the microscope.

Dr. Williams removed from the lids of an adult patient three Encysted Tumors (chalazia). He remarked that care should be taken, in removing these growths, to take out the sac as completely as possible, to prevent the recurrence of the disease.

On Tuesday, March 31st, a very large Cellulitis of the Arm was opened by Dr. Cheever. Ten days previously, the patient wounded the thumb. Free openings were made around the thumb and thenar region. Also an incision, in the median line, just above the wrist, was made between the flexor tendons, through the fascia, and the finger being pushed up on the interosseous membrane, a large quantity of pus was evacuated from the bed of the flexors. Dr. Cheever called attention to the frequency of suppuration in the forearm, as a consequence of felon, injuries of the fingers, and other causes, and to the vital importance of an early evacuation of the pus. He was in the habit of treating these cases of spreading cellulitis, first, by incisions and a large poultice of linseed meal and charcoal; secondly, by quinine, ale and opium, internally.

Paracentesis Abdominis for Ascites was done by Dr. Cheever. The patient had been dropsical for eleven months, and during that time had been tapped twenty-nine times. The last tapping gave fourteen quarts of serous fluid; the present tapping, a pail and a quarter. It was noteworthy that the patient seemed to be but little reduced by this large drain.

A Scirrhous Tumor of the Breast was removed by Dr. Thorndike. The mamma was large and fat, and the tumor had ulcerated through the skin in one place. The growth was of many months' duration. The nipple was not retracted. No glandular enlargement appeared. The patient was of middle age.

A Glandular Tumor of the Neck, extending beneath the lower jaw, was removed, by Dr. Cheever, from a boy of six years. Duration two months. It was not connected with the jaw, or with dentition.

An infant with Tongue-tie was operated on by Dr. Thorndike. He said his practice was to slightly nick the frænum with the scissors, and then rupture the rest of the band with the finger pushed between the tongue and the floor of the mouth. In this way, all chance of hæmorrhage was avoided.

Dr. Cheever operated on a Complete Fistula in Ano, by cutting. He also found the ischio-rectal fossa filled with a hard mass of inflammatory tissue, about to form an abscess. This he incised deeply, thus hoping to abort the suppuration.

A Carbuncle between the shoulders was laid open by Dr. Thorndike.

F. W. DRAPER.

Correspondence.

Reply to "Rusticus."

April 6, 1874.

Messrs. Editors,—Will you let me say a few words about the letter from "Rusticus" in your issue of April 2d?

I have been "Down East" many times, and have seen there a few country physicians who, perhaps, might think as he does, but none who can write so smartly, and certainly none, except through ignorance, so unfairly. One can well understand that, as the village storekeeper has to sell dry goods, groceries, hardware, clothing, provisions, books, crockery, &c., so the trunk of the rustic doctor must contain the tools of the many departments of our art; but I have seen few of them who on this account would advise that the mercantile business of cities be conducted after the primitive fashion of their small community, or assume that they possessed a satisfactory knowledge of all branches of medicine. On the contrary, I have found most country practitioners ever ready to confess that they were unable to master all the subjects of medical knowledge, even in their practical relations.

But Rusticus makes the strange mistake of confounding specialists with quacks. His typical Drs. S., C. and R. were dishonest men, and his patients who came up to the city fell among thieves. Perhaps these doctors became specialists merely "by acquiring a certain knack at doing a certain thing in a certain line," without starting with the determination of making themselves specialists by thorough preparation, which he thinks is "all nonsense." Even the exceptions he makes in the eye and ear are limited by him to their mechanical or lowest relations.

I notice on the cover of the same number of the Journal the new announcement of your medical college. On the list of its instructors, I count ten teachers in special departments, ten specialists; and more, perhaps, might be included in this class. Why have so many men to teach what Rusticus alone could do as well? Does he think that these gentlemen acquired their position as teachers, or skill as practitioners, by exhibiting knacks, or does he think that they treat their patients less honestly than the other gentlemen upon the same list, or than physicians in general?

I do not intend to discuss the question of specialties in medicine. Rusticus knows enough to know that that was settled long ago. If he still doubts their necessity he might, perhaps, be convinced of it by a volume, prepared after the style of his closing paragraph, made up from the case-books of specialists, of the serious and fatal errors of the too-general practitioner.

Please inform Rusticus that his letters are always interesting, but sometimes incorrect, and that it would be more *urbane* not to speak of specialist and quack as synonymous.

Non Omnes Omnia.

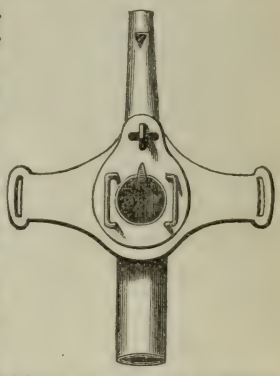
Letter from Vienna.

Vienna, February 23, 1874.

Messrs. Editors,—Of the cases presented to the students at the Hospital the present winter, none has awakened more general interest than the patient upon whom the operation of total extirpation of the larynx was performed by Prof. Billroth, on the 3d of December last. The patient was a strong, healthy man, aged about 35 years, who had been unsuccessfully treated for about eight weeks at the laryngoscopic *clinique* of Prof. Störck, by whom he was transferred to the surgical wards of Billroth. It having been ascertained that the larynx was the seat of an extensive morbid growth (of an epithelial character, as was afterwards demonstrated), the organ was opened by means of an external incision, and the diseased tissue removed, together with a portion of the vocal cords. This operation afforded the man but a brief respite from his sufferings, for, in the course of a few days, there was a recurrence of severe dyspnœa, and an examination revealed the fact

that the morbid growth was returning with great rapidity, and that the whole interior of the larynx would soon be involved. At this juncture, the feasibility of removing the entire larynx suggested itself to Billroth, an experiment which had never been resorted to in the human body, although it had been repeatedly carried out with success in the case of dogs by Czerny, the former assistant of Billroth. The patient acquiesced in the proposal, and the operation was therefore undertaken in the following manner. Tracheotomy was first performed, in order to accustom the man to the use of the canula, by the aid of which respiration was in future to be carried on. This having been accomplished, the thyroid and cricoid cartilages were cut down upon, and the dissection carefully continued around the larynx, until the attachments with the surrounding tissues and the œsophagus were completely severed, a tedious procedure, which occupied nearly two hours. The larynx, having at length been isolated, was removed, leaving *in situ* the hyoid bone and the non-diseased portion of the epiglottis. The large opening left was diminished by bringing together the raw surfaces in front of the upper portion of the œsophagus. Upon the night succeeding the operation, a lively hæmorrhage occurred from some of the smaller arteries, and before they could be secured, the man seemed in imminent danger from suffocation. With this single exception, there was no drawback, and a good recovery was made. For the period of a fortnight, it was found necessary to administer liquid nourishment through an œsophageal tube, the extensive wound interfering with the process of deglutition. At the expiration of this time, however, the soreness had abated, and the man soon acquired a familiarity with the muscular efforts rendered necessary by the new condition of his pharynx, and was able to swallow solid food with no more difficulty than if he had merely experienced the loss of the epiglottis.

The presence of the larynx has always been considered indispensable to the act of speech, and it was, therefore, a matter of no small surprise to the medical attendants that the man still possessed the power of communicating his wants in an indistinct, but intelligible whisper. At a later date, it was thought worth while to attempt to convert this whisper into an audible voice. An artificial, metallic larynx was therefore contrived, fitted with vibratory reeds, in imitation of the vocal cords, and projecting into the cavity of the glottis through an opening in the upper convex side of the tracheotomy tube. By bringing into play the soft palate, tongue, lips and cheeks, the sound emitted by this instrument can be modulated and controlled to a very considerable extent, and the man can therefore congratulate himself that, if his voice is a trifle monotonous in its pitch, it is by no means unmusical in tone. The extensive wound made by the dissection is now completely healed, and the result of the operation, which at this late date must be conceded to have been successful, will add not a little to the reputation of Billroth, its originator and executor. If I am correctly informed, however, there is reason to suspect that the malignant growth is returning within the bronchus, in which case no further relief is to be looked for from surgical interference.



Among the lecturers whose familiar faces are missed here at present may be mentioned Prof. Sigmund, who is spending the winter in Italy. His specialty is being well treated, however, in a course of lectures given by his assistant, while the extensive material furnished by his wards is displayed by Prof. Zeissl. The resignation of Prof. Hyrtl, which takes place at the end of the present semester, will leave a vacancy equalled only by that caused by the death of Prof. Oppolzer, and the faculty are at a loss to determine how the gap can be filled. His lecture-room is now thronged with strangers desirous of listening to the last course of the master-anatomist.

The galvano-cautery and the elastic ligature of Prof. Dittel are, for the

time being, almost displacing the knife in the surgical wards of the hospital, being employed, it seems to me, in many instances where their use is of very questionable advantage. As an example of this substitution of a tedious process for a quick one, I will only mention that a circular amputation of the thigh was performed not long since by the aid of the cautery. The manner in which the method of the elastic ligature was originally suggested is both curious and interesting, and illustrates what has often happened in the progress of discovery, that fortuitous circumstances may give birth to very wonderful realities, and that chance may accomplish what talent and genius has failed to attain. It appears that, as long ago as March, 1872, a young girl presented herself at the hospital with her head swarming with pediculi, having her hair confined in a net held in place by an elastic ligature. Upon examining her head, the elastic, which, according to the girl's story, had not been removed for the space of a fortnight, was found to have forced its way through the scalp, and, in places, was even imbedded in the skull. The powerful force of the ligature thus accidentally revealed was very soon turned to account in the treatment, first of a nævus, and, later, of fistulæ and tumors.

The number of the American students at work here this winter is above fifty. Of the Austrians and Germans, there is a great falling off, induced by the rapid rise in the prices of rooms and board, the increased *honoraria* demanded by the instructors, and, finally, the loss by death or resignation of several of the most celebrated instructors.

Neurasthenia and its Treatment.

New York, March 23, 1874.

Messrs. Editors,—In Dr. Fisher's article on Neuriasis, recently published in your Journal, I am credited with having introduced the term "neurasthenia" to the profession. This claim, I have recently learned, is not strictly just. In Dunglison's Medical Dictionary (1860) I find the following:—"Neurasthenia, *Neurodynamia, Debilitas Nervosa.* Debility or impaired activity of the nerves; from νευρον, 'a nerve,' and ασθενεια, 'debility.'"

Dr. Van Heusen, in a paper published several years ago, spoke of neurasthenia as an old term; but I supposed that he was in error. It seems, therefore, that the word neurasthenia has at some time been in use, and it is also clear that it had been pretty generally forgotten. There is, so far as I can learn, no evidence that it had ever been used to represent any very definite state, or that a disease worthy of that name had ever been recognized. I devised the term independently, from νευρον, "a nerve," α privative, and σθενεια, "strength," and tried to make a differential diagnosis between neurasthenia and anæmia, with which it is usually confounded. Dr. Austin Flint had previously written a short chapter on nervous asthenia. I did not intend to include under the term neurasthenia all distinctly hysterical symptoms, but rather the vast array of phenomena that appear in the stages of nervous exhaustion, through which hysterical patients pass before they develop those emotional disturbances that are generally regarded as diagnostic of hysteria. As I understand Dr. Radcliffe, neuriasis covers about the same ground. Neurasthenic patients do not of necessity ever develope the extreme symptoms of hysteria, and, conversely, those patients who are affected with what I call mental hysteria, which depends exclusively on the *mental* organization—the predominance of emotion over reason—do not of necessity ever pass through the stage of neurasthenia.

It is not my desire here to write an essay on the subject, but I may, perhaps, briefly suggest the method of treatment that I have found of very great efficacy in neurasthenia, namely, central galvanization and the use of cod-liver-oil emulsion. My method of central galvanization has already been described in this Journal. The cod-liver-oil emulsion has also been published in the *Archives of Scientific and Practical Medicine;* but it is not yet fully appreciated. The prescription of a cod-liver-oil emulsion was originally

given me by Dr. J. B. Andrews, of the Utica Insane Asylum. I have modified this prescription in various ways, and have experimented with it quite largely, and have recommended it to many of my professional friends. It takes a long time to make it, and the majority of druggists will slight it unless they are assured it will be ordered in large quantities. The latest modification that I employ is the following. If desired, Fowler's solution may be added to it. One of my patients, a physician, has added strychnine to it.

℞. Glyconin, ℥ix.;
Ol. morrhuæ, ℥iv.;
Spts. ammon. arom., ℥i.;
Vini xerici, ℥ij.;
Acid. phos. dil., ℥ss.;
Ol. amygdal. amar., gtt. ij.;
dissolved in alcohol, ℥ij. M.

Put the glyconin first in the mortar, then add the oil by drops, stirring briskly all the time. When this process is completed, you will have a mass looking like, and having the consistency of, soft butter. Then add the other ingredients in the order mentioned; add them slowly, stirring all the time. The glyconin is made by beating yolks of eggs with a spatula until they are well broken, then add an equal measure of glycerine. It requires one or two hours to make it.

The above preparation, when *properly prepared*, robs cod-liver oil of its terrors. The taste of the oil is pretty nearly destroyed, and no one, however fastidious, objects to it. When properly prepared, it will keep for months, if not years. Mr. Close, a pharmacist of Brooklyn, who introduced the glyconin modification in the emulsion, lets the oil drop out of a small bottle through a glass tube, and thus avoids the danger of pouring it in too fast. This emulsion, when made according to the above directions, with sufficient care, time and labor, is without question the best emulsion of the kind now before the profession. The original prescription, of which the above is a modification, is, or was, used in the Utica Insane Asylum in large quantities, and with satisfactory results. One druggist, to whom I gave the prescription, makes several gallons at a time and keeps it always on hand. Consumptives, who must take cod-liver oil, and yet cannot bear it, find this emulsion agreeable, and, as far as I can learn, as useful as the oil when taken alone.

My own experience with the emulsion has been confined mostly to its use in hysteria, neurasthenia and allied affections, and I know of no single prescription that does so much good and so little harm in all these aneuric disturbances. I earnestly recommend it to the profession, and especially to those who are giving special attention to diseases of the nervous system.

The dose ranges between a dessertspoonful and two tablespoonfuls. If it tastes badly and keeps badly, the fault is in the druggist.

Yours &c., GEO. M. BEARD.

Obituary.

DR. FORBES WINSLOW.

DR. WINSLOW, the eminent English author, died on the 3d of March ult. at the age of 63. His tastes at an early age took a metaphysical coloring, and his published works all show a tendency toward the psychological side of medical science. The work with which his name is chiefly associated and by which he is most widely known is the one entitled "Obscure Diseases of the Mind and Brain," written in 1850 and issued in four editions. He was for sixteen years the Editor of the *Psychological Journal*. Besides his numerous volumes and his active editorial work, many contributions to the literary and scientific journals of his country bear witness to his industry and ability.

His social and philanthropic qualities were marked. For years it was his custom, on Christmas day, to give a dinner to three hundred poor people.

Dr. Winslow was the lineal descendant of Edward Winslow, who came to Plymouth with the Pilgrims in 1620.

Medical Miscellany.

At the meeting of the Boylston Medical Society, held last Friday at the Medical College, the reading of Dr. Bowditch's paper on the History and Present Prospects of Thoracentesis was continued. It will be concluded to-morrow evening.

Successful Case of Transfusion.—Prof. Liedeshorf, of Vienna, reports (*Allgemeine Medicinische Central-Zeitung*, Feb. 18, 1874) a successful case of transfusion resorted to in the case of a man, aged 23 years, who, in consequence of heavy pecuniary losses, had become greatly depressed, and had finally fallen into a cataleptic condition, which had lasted three weeks. Reflex sensibility was greatly impaired, and no relief was experienced from the application of electricity. As a last resort, recourse was had to transfusion, and three ounces of blood were therefore injected. The temperature at once rose from 36° to 39·5°, and the pulse from 45 to 80. The patient began shortly after to speak; the cataleptic symptoms gradually disappeared, and complete recovery rapidly ensued.

A Knife Swallowed and Passed through the Abdominal Wall, after an Interval of Nine Weeks.—A female, twenty-six years old, during an attack of delirium tremens, swallowed a dessert knife, the metal part of which measured six inches and a half. Eight weeks later, a globular swelling made its appearance in the right side, nearly on a level with the umbilicus, and the sharp edge of the foreign body could be felt distending the skin, which was freely movable over the tumor. After some days, the blade of the knife protruded through the skin, and was easily removed by slight traction without additional incision. The ivory handle had been entirely digested, and the extremity of the blade was rendered very thin by the action of the gastric juice. The nervous shock was considerable at the time of the removal of the offending body, but a good recovery was made without the formation of a gastric fistula.—*Liverpool and Manchester Medical and Surgical Reports*, 1873; *The Clinic.*

Suffolk District Medical Society.—At the annual meeting, held March 28th, the following officers were elected for the ensuing year:—

President.—F. Minot.

Vice President.—H. W. Williams.

Secretary.—J. R. Chadwick.

Treasurer.—A. B. Hall.

Librarian.—B. J. Jeffries.

Commissioner on Trials.—George Hayward.

Committee on Supervision.—G. H. Gay, Samuel A. Green.

Committee on Social Meetings.—Calvin Stevens, H. I. Bowditch, J. P. Oliver, G. W. Gay, J. L. Hale.

Censors.—B. J. Jeffries, A. L. Haskins, F. W. Draper, T. Waterman, G. G. Tarbell.

Councillors.—S. L. Abbot, J. Ayer, H. J. Bigelow, J. N. Borland, H. I. Bowditch, B. Brown, C. E. Buckingham, S. Cabot, P. M. Crane, Hall Curtis, George Derby, C. Ellis, J. Flint, G. H. Gay, F. B. Greenough, A. B. Hall, G. Hay, D. H. Hayden, George Hayward, R. M. Hodges, C. D. Homans, J. Homans, Wm. Ingalls, J. B. S. Jackson, J. F. Jarvis, G. S. Jones, G. H. Lyman, F. Minot, W. W. Morland, H. K. Oliver, C. G. Putnam, J. P. Reynolds, W. L. Richardson, G. C. Shattuck, B. S. Shaw, A. D. Sinclair, D. H. Storer, C. W. Swan, J. B. Treadwell, J. E. Tyler, O. F. Wadsworth, C. E. Ware, J. C. White, H. W. Williams.

THE Lepus Bairdii is a peculiar species of rabbit which is found in the mountains near the Three Tetons of Wyoming and the heads of the Snake River and the Missouri. One of its peculiarities is the habit which the males have of suckling the young. Numerous specimens of this sex were obtained by the naturalists of Hayden's geological survey of 1872, with well-developed teats and mammary glands filled with milk.—*Medical Times.*

THE secret remedy of a certain notorious quack named Basto, which was supposed to have produced such marvellous results in the treatment of hæmorrhoids and fistula in ano, is, we understand, now no longer a secret, and, indeed, has been employed for some time past by one or two practitioners of this city in the treatment of these affections. The remedy proves to be nothing more or less than a mixture of potassa fusa with flour or starch or gum made into a plaster and passed into or through the fistula. In other cases, carbonate of potash is used.

OF THE FACE AND ITS INFIRMITIES.—1. *The Cause.* It is palpable, that the cause of rednesse, and breaking out of the Face, is a venomous matter, or filthy vapour ascending from the stomach towards the Head, where, meeting with a Rheum or Flegm thence descending, mixeth with it, and breaketh out in the Face. Therefore let the first intention of cure be to cleanse the stomach.

2. *Caution Negative.*—Let such as are troubled with red Faces, abstaine from salt Meats, salt Fish and Herrings, drinking of strong Beer, strong Waters or Wine, Garlick, Onions and Mustard, yea, if it be a Welch Man, or Woman, he must abstain from toasted Cheese, and Leeks, and that is a Hell upon Earth to them.—*Culpeper*, 1656.

HYPERÆMIA OF THE THYROID BODY.—In the *Archiv der Heilkunde*, vol. xiv., No. 6, Ludwig (of Pontresina) describes the case of a gentleman who, after suffering from violent paroxysms of cough for some days, was suddenly seized with a swelling on the front of the neck, which impeded respiration. There was found to be an elastic swelling extending downwards from four centimetres below the middle of the thyroid cartilage nearly to the sternum, and to the sterno-mastoid muscle on each side. In the course of a few hours it increased to the size of a child's head ; the dyspnœa became more intense, and deglutition was difficult. There was no pulsation in the tumor. Soon, however, it began to diminish, and the next day it had entirely disappeared. Ludwig regards the case as one of acute hyperæmia of the thyroid body, but cannot assign a cause.—*Medical Press and Circular.*

DIED,—In Fitchburg, March 31st, Dr. Alfred Hitchcock, aged 60 years.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending March* 28, 1874.

Boston, 153; Worcester, 15; Lowell, 19; Milford, 3; Chelsea, 9; Cambridge, 13; Salem, 10; Lawrence, 12; Springfield, 6; Lynn, 14; Fitchburg, 4; Taunton, 3; Newburyport, 5; Somerville, 8; Fall River, 19; Haverhill, 7; Holyoke, 8. Total, 308.

Prevalent Diseases.—Consumption, 61; pneumonia, 35; scarlet fever, 26.

Fall River reports one death from smallpox.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, April 4th, 164. Males, 81; females, 83. Accident, 2; abscess, 1; apoplexy, 4; anæmia, 1; inflammation of the bowels, 2; disease of the bowels, 1; disease of the bladder, 1; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 3; disease of the brain, 4; cyanosis, 3; consumption, 29; convulsions, 6; cerebro-spinal meningitis, 1; croup, 1; debility, 4; dropsyof the brain, 2; epilepsy, 2; erysipelas, 1; scarlet fever, 8; typhoid fever, 7; gangrene, 1; disease of the heart, 10; hæmorrhage, 1; influenza, 1; intemperance, 1; jaundice, 1; disease of the kidneys, 4; congestion of the lungs, 2; inflammation of the lungs, 20; marasmus, 5; old age, 6; paralysis, 3; pleurisy, 2; premature birth, 3; peritonitis, 1; puerperal disease, 7; phlebitis, 1; rheumatism, 1; disease of the spine, 1; teething, 1; whooping cough, 4.

Under 5 years of age, 56; between 5 and 20 years, 18; between 20 and 40 years, 38; between 40 and 60 years, 23; over 60 years, 29. Born in the United States, 109; Ireland 38; other places, 17.

THE

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Original Communications.

VILLOUS CANCER.

By W. C. B. FIFIELD, M.D., M.R.C.S. Eng.

Visiting Surgeon at the Boston City Hospital.

AT the meeting of the Boston Society for Medical Improvement, November 24, 1873,* Dr. J. B. S. Jackson is reported to have said, *apropos* of a case of villous cancer of the bladder, "that this disease was always found in the lower half of the bladder. As far as he knew, there was no reason to suppose that it ever affected any other part of the body than the bladder." It is to correct this idea, which, proceeding as it does from such preëminent authority as Dr. Jackson, might have a mischievous effect on the general professional mind, that I shall ask the publication of this brief article.

Villous cancer *does* affect other parts of the body, and it was from want of this conviction that I have seen it confounded, clinically and microscopically, with the so-called glandular polyp. Follin† says:— "There has been described, under the name of dendritic cancer, villous cancer, a kind of cancerous tumor characterized preëminently by the development of villosities which resemble those of the chorion. It is most often observed upon the vesical mucous membrane, although it *has been seen* in the stomach, the rectum, the gall-bladder, the interior of ovarian cysts, within the cavity of the peritoneum. These fine villosities hang within natural cavities, and rest on a firmer base, having the consistence of encephaloid, which renders, upon pressure, a creamy juice. They are hard, of a red or blackish color, and enclose many vessels. . . . . The cellular elements of cancer are deposited either upon the exterior or the interior of the dendritic vegetation. In the former case, they form a soft deposit around it."

I may add to this statement of M. Follin, that villous cancers follow the same law as other kinds of cancer, namely, that being once removed they tend to return again and again, operation being useless.

I beg leave to introduce here some very remarkable observations upon this subject, quoted by Mons. F. Villard:‡ "Villous cancer is the rarest form of cancers which are developed in the biliary canals. None of the observations that we have collected have produced an example of it. We borrow from Frerichs his description, in order to give an idea of this variety of alteration:—

"'Villous cancer of the gall bladder occurs most frequently upon the anterior wall, where it is implanted in the sub-mucous tissue,

* JOURNAL, Feb 12, 1874, page 174.

† Traité Elémentaire de Pathologie Externe. Tome premier, page 314.

‡ Etude sur le Cancer Primitif des Voies Biliaires. Paris. 1871. Page 21, Sec. iv.

sometimes by a narrow pedicle, sometimes by a base. At the points where the young productions of this nature develope themselves, the mucous membrane appears as if covered with a whitish velvet. The older present a cauliflower appearance. The warp of this cancerous tissue is formed of elongated excrescences, some arborescent, some club-shaped, consisting of connective-tissue, and containing a great number of large vessels. These excrescences are covered with cylinder-epithelium. The wall of the gall-bladder upon which they are developed is thickened, transformed into fibrous areolar tissue, which is soaked with cancerous juice. This form of cancer follows, identically, the same march as other varieties of cancer of the biliary canals with which it may coëxist.'"

The author quotes* a case of villous cancer of the gall-bladder, with consecutive degeneration of the liver, originally reported by Dr. R. Heschl, in the *Wiener Zeitschrift* (Tome viii. 1852, p. 9), "This case was that of a woman, 62 years old, who offered, besides the pre-cited affection, a whitish, cancerous nodule of the liver, and a croupal pneumonia at the right. The gall-bladder was about five inches in length, its walls were from two to five lines in thickness, and presented areolæ of different dimensions. The latter contained a reddish-green liquid, which, in places, was of a puriform, yellow color. Upon their internal surfaces, there was no trace of mucous membrane, but one saw there vegetations, of which some were small and velvety; others, large and numerous, were formed like cauliflowers. All were soft; the youngest, white; the eldest, vascular; of a dirty-yellow color, with a greasy look. By the microscope, one saw, first, that these vegetations were covered by a layer of cylindrical epithelium, which glued them, here and there, into little masses; secondly, that, in some, one recognized masses of the muscular fibres of organic life; thirdly, that the substance of the greater part was transformed into molecular fat; fourthly, that the creamy, yellow and reddish liquid was formed of cylindrical epithelium and fatty granulations. Moreover, one found, near the summit of the gall-bladder, many biliary calculi. One, in the ductus choledocus, was the size of a large nut."

To conclude, I would draw attention to villous cancers of the rectum. I have seen one such case. From their rarity and peculiar appearances, they give rise to contradictory and mistaken opinions as to their true nature, to false prognoses as to their curability, and, by consequence, to painful and useless operations.

Since the above was written, the subject of villous cancer has been discussed by, at least, two London Societies, various opinions being elicited, pro and con, as to its cancerous nature, Dr. T. Snow Beck being one of the most positive opponents of its malignancy; others, quite as eminent, were less strongly committed to his opinion. As to its appearance in the rectum, Mr. Peter Gowland, of St. Mark's Hospital, in a discussion at the Clinical Society, speaks of having met with four cases, some of which, having been operated on, had not returned. I would, therefore, so far modify the opinion advanced by me in the foregoing article as to hold the question of its fatal return after removal, as still an open one. I believe even the most fully accepted malignant growths, scirrhus, &c., have, in some very exceptional cases,

* Op. cit., page 95, Observation xvii.

not returned after removal; therefore the cases given by Mr. Gowlland may be held, for the present, not sufficiently conclusive to warrant a decidedly favorable prognosis for cases in general, where removal may be proposed.

NOTES OF CASES OF PLEURISY AND PARACENTESIS THORACIS.

By Hall Curtis, M.D.

Visiting Physician at the Boston City Hospital.

I.—P. C., aged 32, currier, entered the hospital March 18, 1873. Family history good. Constitution and general health good. No previous illness. Habits temperate. Four weeks before entrance, the patient had two chills, followed by fever, and frequent vomiting. He had a cough, which became severe at once, with half a pint of expectoration in twenty-four hours. For a number of days, the sputa were streaked with fresh blood. These symptoms were accompanied with some lancinating pain over the left chest, particularly on coughing, and with deep inspiration.

March 21st.—Resonance good over nearly the whole of the left back, though there is dulness in its lower portion. The line of dulness varies with the position of the patient; but above the fourth rib, in front and over the upper portion of the scapula, is a faint, respiratory murmur, accompanied by sub-crepitant râles. Throughout the entire left chest, the succussion sound is distinct. On the right side, there is dulness from the fourth rib down to epigastrium, extending from the median line as far as the right nipple, and the heart is felt beating in that situation. Good resonance and exaggerated respiration over the rest of the right lung. The chest was painted with tincture of iodine.

April 8th.—The left chest measured seventeen and a half inches; the right, sixteen and three-quarters. The patient was tapped, one inch below the angle of the scapula, and two quarts of clear serum were removed.

April 17th.—Some want of tone in lower portion of right back. Respiration heard in lower fifth, but indistinct. In the axillary line, it still has rather an amphoric character. Discharged, well.

II.—T. T., aged 48, laborer, entered hospital April 16, 1873. His family history is obscure. Patient came to the hospital for the first time about two years ago, and has since been here ten times, on each occasion fluid being withdrawn by paracentesis thoracis. His disease is chronic pleurisy. He is generally warned of an excess of fluid in left side of the chest by a stitch-like pain there, and by considerable cough. The average time for "filling up" of the chest has been three months.

Patient is now up and about, feeling quite comfortable. Temperature 98.6°. Left chest completely flat over lower two-thirds, with want of tone in the upper third. By the aspirator, half a pint of bloody serum was withdrawn, when the valves of the instrument became clogged and the flow ceased.

April 19th.—The left chest was again tapped, and three pints and a half of a dark, reddish-brown fluid were withdrawn.

April 21st.—Patient feels quite relieved, having now only a feeling of soreness in the left chest. He refused to have a permanent opening made, and was discharged, "relieved."

III.—G. B., aged 30, carpenter, entered hospital April 21, 1873. Family history good. He has hitherto been well and strong; is temperate. Three weeks before entrance, he had rigor and epistaxis, followed by fever, and severe pain in the right side, increased by deep inspirations. This lasted four days, and was immediately followed by a cough, which has continued, with expectoration of a sputum, "thin and whitish." Lately, he has been troubled with difficulty of breathing, especially troublesome at night, with stitch-like pains in the right chest. Pulse 120. Temperature 102.8°. Respiration 40.

When patient lies on his back, the side of the right chest is very prominent; the intercostal spaces full, with diminished expansion. The right front is entirely dull; the left front hyper-resonant. Entire absence of respiration in right front, except in clavicular region, where it is faintly bronchial. On the left front, exaggerated respiration is heard. The heart's apex beats forcibly an inch and a quarter below and outside of the left nipple. The right back is completely dull, with entire absence of respiration. Nasal sound of voice throughout. Right chest, on mammary line, measures nineteen inches; the left chest, eighteen and a half inches.

April 26th.—The patient had a sleepless night, and complains a good deal of pains in the right side, which is now red and œdematous. Paracentesis was done, and two and a half quarts of sero-purulent fluid were withdrawn.

May 1st.—Patient much easier. Sleeps well. Appetite good. Pulse 100. Respiration 24. Temperature 98.8°. The œdema has entirely disappeared from the thorax. Dulness on right side anteriorly; begins at fourth rib, and from nipple downward is complete; comparative over upper half of back, and complete below. Distant respiration heard at angle of scapula, and along its posterior edge; none below. Pleuritic friction at apex.

May 19th.—Paracentesis was again done; half a pint of sero-purulent fluid was withdrawn, and he was discharged, "much relieved."

IV.—C. J., aged 22, sail-maker, entered hospital May 9, 1873. Family history good. He never has been sick before. He was taken sick, five or six weeks before entrance, with severe cough, and pain in left side, under sternum, and also in right side. In bed two weeks, with yellow expectoration, streaked with blood. Temperature 100.4°. Pulse 97. Respiration 38.

At the apex of right lung, respiration is rude, and expiration prolonged, from second rib down; on inspiration, crepitation is heard. Dulness over lower three-fourths of the right back, increasing towards the base. Expiration prolonged. Sonorous and creaking râles, and occasional crackle at the apex. Respiration absent below the middle of the scapula, and there is no expansion.

The chest was painted with tincture of iodine; and, though the patient's general condition improved under tonics, still, at the end of May, there was dulness over lower one third of the right front, with bronchial breathing and subcrepitant râles. Distant breathing over the right back; bronchial on forced inspiration, with distant, subcrepitant râles over lower third, and nasal tone to voice, with copious, muco-purulent expectoration.

June 2.—Patient was tapped with aspirator, and twenty-four ounces of pus were drawn off, the last third of which was mixed with blood. He was more comfortable, and had diminished cough after operation.

June 6th.—Paracentesis was again done; eight ounces of pus and blood were withdrawn, when the aspirator became clogged, and the discharge ceased. The operation was followed by increased cough, with bloody expectoration.

June 9th.—Dulness below line passing from the right nipple to the middle of the scapula. Over the right back, respiration is only heard at a point corresponding to the posterior and lower edge of the scapula; but on forced inspiration, distant respiration may be heard in the upper half of the back. Subcrepitant râles are heard over the front of the right chest, growing faint towards the nipple, and absent below. The chest is immovable, and interspaces are bulging.

June 19th.—The aspirator was again used, and one pint of pus was removed. The opening in the chest-wall was then enlarged, and a drainage-tube put in. Temperature 100.5°; pulse 110; respiration 34; taken at night.

June 20th.—Comfortable night, without cough. This morning, there is slight cough and expectoration. Pulse (P.M.) 100. Respiration 30. Temperature 99.3°. The pleural cavity is washed out, night and morning, with a weak solution of carbolic acid.

June 23d.—About one ounce of purulent fluid came from the tube during the last twenty-four hours. Temperature 98°. Pulse 75. Respiration 20.

June 27th.—Very slight discharge, serous in character; opening almost closed. Just above and within the right nipple, amphoric respiration is heard; crepitation over lower fourth of the chest; over the back, distant respiration is heard on line with opening, and what seems like a crackle.

July 7th.—Discharged, well.

V.—M. McN., aged 38, rigger, entered hospital May 19, 1873. Family history good. He has always been in good health. Since last November, however, he has had a cough and pain in the chest; has lost flesh and strength, but has not had hæmoptysis or night-sweats. Ten days before entrance, he suffered with severe pain in the left side and back; also in the right back. Cough, now, has diminished, and the expectoration is scanty. He complains of pain in the right side, especially when he walks, or takes a long breath. Temperature 101.7°. Pulse 100. Respiration 30.

The left back is dull in the lower half, and there is absence of respiration. There is a slight want of tone at the base of the right back, with creaking. Tincture of iodine to back. Quinine, tincture of gentian.

May 26th.—Lower fourth of right back dull; lower third of left, dull; over the right back, at the lower half, are friction sounds; upper third, inspiration rude and jerking. Expiration prolonged, with sonorous râles. Respiration distant over upper half of the left back; friction sound at junction of middle and lower third. Heart-sounds labored, irregular and displaced.

June 10th.—Left back, from angle of scapula down, perfectly dull. No respiration below the middle of scapula. The aspirator was used, and half a pint of serum withdrawn.

June 11th.—During the night, the patient was restless, had dyspnœa and nervous agitation. At the morning visit, the respiration was 40; the pulse 120. There is complaint of pain below the lower border of the ribs on the left side. Respiration is heard clearly through the anterior part of the chest. The left back is clearer on percussion, and respiration is heard three inches below the angle of the scapula.

P.M.—Has been in a rather stupid state all day. Temperature 104.1°.

June 28th.—Respiration at both bases, accompanied with subcrepitant râles. General condition much improved. He is discharged, "relieved."

A CASE OF OBSCURE CEREBRAL DISEASE.

By Robert Boyd, M.D. Harv., Linneus, Me.

The following case is reported, not because of any peculiar interest it might have for the readers of the Journal, but rather on account of its speedily fatal termination after symptoms comparatively mild; and also because the writer, who was the medical attendant of the patient, and the physician called in consultation could not agree in their diagnosis.

Feb. 17, 1874, I was first called to visit R. F. H., aged 17, male, the eldest of seven children, all living, and all healthy. The parents are both living; the father is healthy, the mother anæmic and suffering from some obscure trouble in the eyes. From the mother, a very intelligent and keenly observing woman, I obtained the following account of the boy's present sickness. "He had been in an adjoining town attending school, and had applied himself very closely to his studies. About a week ago he took cold, attended with pain in the side of the head; and, on the 14th, he came home, and received domestic treatment until the 16th, when he felt so much better that he returned to school, but during the day he felt worse. In the evening of the 16th, he returned home, riding the whole distance—about five miles—upon an open lumber sled. That night, he had a warm foot-bath and a warm hop-poultice to the side of the head."

Feb. 17th.—The pain continuing and the patient not having slept any the previous night, I was sent for at 6, P.M. I found his condition as follows. Pulse 74. No increase of temperature apparent to the touch. Skin moist. Face pale; pupils normal. Appetite poor; tongue slightly coated; bowels constipated. Respiration free and easy; no cough. Vomited once yesterday. Complains of severe pain in the right temporal fossa, somewhat relieved by pressure and warmth, but greatly aggravated by moving the head. Intolerance of light and sound was marked; his mind was clear; he answers questions promptly, protrudes the tongue in a direct line and without any difficulty. In reply to inquiries about the opposite side of the head, he said: "That is all right, no trouble there, it is all here," placing his hand over the region already indicated. He described the pain as a "sense of fulness, and, when severe, as though the head would burst"; he wanted an attendant to press heavily on it with the hand at such times.

I gave him a grain and a half of powdered opium and ordered twenty-five grains of bromide of potassium every night at bed-time;

fifteen drops of the muriated tincture of iron were prescribed to be taken three times a day; and I left him five one-grain opium powders, to be taken according to the urgency of the pain, but not oftener than one every eight hours. The hop-poultice was to be continued.

Feb. 19th, 5, P.M.—Continues about the same. He has taken four of the opium powders; vomited once after taking the potassium. Pulse 78, strong and regular; breathing easily, no cough, no febrile movement, no delirium, no pain in the back or extremities. Countenance pale, pupils normal. He wants to lie with the head high. The pain is confined to the original locality. On account of persistence of the pain, a quarter of a grain of sulphate of morphia was injected subcutaneously over the seat of the pain, and a blistering plaster was directed to be applied over the point of the injection if the pain was severe after twelve hours. The opium previously ordered was omitted; the other treatment was continued.

Feb. 21st, 8, P.M.—The injection of morphia, made at the last visit, quieted the patient sufficiently to allow him several hours' sleep; but, on getting up to walk to an adjoining room, the pain again became severe, and the blister was applied. He vomited once yesterday. The symptoms are nearly the same as at last visit; he complains, however, of pain extending towards the top of the head and back towards the occiput. Since the application of the blister, very little pain has been felt at that point; no pain on the opposite side of the head. The following liniment was applied to the part affected, not occupied by the blister:—

℞. Tinct. aconiti,
Chloroformi, āā ʒi.;
Spts. vini rect., ʒiv. M.

I also gave him one eighth of a grain of sulphate of morphia and twenty grains of bromide of potassium. I promised to return the next day, at 2 o'clock, P.M., requesting the father, if the pain continued, to call in another physician.

Feb. 22d, 2, P.M.—Patient quite comfortable. Had slept quietly from 10 o'clock, P.M., until 6, A.M. In reply to my inquiries as to how he felt, he said cheerfully, "I feel first rate, to-day. If it were not for that blister, I could get along nicely, now." He said he felt tired; he looked pale and languid, but conversed freely and intelligently on different subjects, and altogether appeared decidedly better. One dejection this morning; tongue slightly coated; pulse not taken.

Continued the iron, and left four powders, each containing one quarter of a grain of sulphate of morphia, with directions to be taken if needed.

Feb. 23d, 8, A.M.—Was sent for; patient worse. Towards evening, he began to feel badly at the stomach, and vomited, after which he felt better; but at three o'clock, this morning, the pain again became intense. Had taken two of the powders, and had applied the liniment without any relief; he complained of the pain extending through to the opposite ear. On hearing my voice in an adjoining room, soon after my arrival, he requested the attendant to tell me when I came into the room to "speak easily, for the noise almost killed him." In a few minutes, when I entered his room, the attendant said he had just gone to sleep. Found him lying on his back, his

head elevated with pillows, his breathing regular, his right eye closed, the left partly opened, his carotids rapidly pulsating, sordes on his teeth, his symptoms typhoidal. I thought best not to arouse him, as Dr. Bussey, of Houlton, was expected soon. Dr. B. came at 8.30, A.M., when the breathing had become considerably interrupted; and, on attempting to arouse him, he could only partially succeed. There was ptosis of the right lid, and the pupil of the same eye was dilated to three times the size of the opposite. Clonic spasm of the muscles of the extremities occurred, lasting several seconds. Dr. Bussey at once pronounced it a well-marked case of cerebro-spinal meningitis. From that opinion I then dissented, and I am still unconvinced. Stimulants internally, and counter-irritation to the nucha and spine were proposed and assented to. The stupor rapidly deepened, however, the breathing became more interrupted, and he died at 11.30, A.M. There was no autopsy.

The prominent symptoms of the above case were, severe localized pain, aggravated by light, sound and motion; with occasional vomiting, constipation and loss of appetite. There was not at the time, nor has there been since, any prevailing epidemic of cerebro-spinal meningitis. The case did not at any time present any delirium, fever, purpura, herpes, pain in the back or extremities, stiffness of the muscles of the nucha, hyperæsthesia, or opisthotonos.

In the *American Journal of the Medical Sciences* for October, 1873, Dr. J. Lewis Smith, of New York, in an article on cerebro-spinal fever, under the head of diagnosis, says :—"Cerebro-spinal fever, on account of the nature and severity of its symptoms and the suddenness of its onset, may be mistaken for scarlatina, and *vice versâ*. In one instance, to my knowledge, this mistake was made. High febrile movement, vomiting, convulsions and stupor are common in the commencement of scarlet fever, and we have seen the same symptoms usher in the severer forms of cerebro-spinal fever.

"The diagnosis of cerebro-spinal fever from the common forms of meningitis is ordinarily not difficult, for while in the former there is the maximum intensity of symptoms on the first day, in the latter there is a gradual and progressive increase of symptoms from a comparatively mild commencement. Again, in cerebro-spinal fever, after the second or third day, hyperæsthesia, retraction of the head and other characteristic symptoms occur."

Was the foregoing a well-marked case of cerebro-spinal meningitis?

Poisoning by Berries of the Mistletoe.—Dr. Dixon reports a case of poisoning due to the action of the above parasitic plant, occurring in a boy aged 14. The berries were taken at about 8.30, P.M., and when seen by Dr. Dixon, one hour afterwards, the boy presented many of the symptoms of alcoholic intoxication. His countenance was suffused, the lips were livid, the conjunctivæ were injected, the pupils were slightly dilated and fixed; the pulse was slow, full and bounding; the breathing was slow and stertorous. On pricking the soles of the feet, the limbs were quickly drawn up, showing that there was no paralysis of the excito-motory functions. The treatment consisted of the application of cold affusions to the spine, and emetics, followed subsequently by a sinapism to the nape of the neck. At the expiration of about two hours, the patient, having obtained relief, fell asleep, and complete recovery ensued.—*British Medical Journal.*

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

Pathology.

Fever.—In a previous report,* certain experiments were referred to, which suggested the influence of germs in producing an elevation of temperature. Subsequent observations have been made by Lewitzky (*Centralblatt*, 1873, p. 723) which tend to modify the mechanical theory there referred to. This experimenter made use of rabbits. Subcutaneous injections of water, slowly performed, were not followed by an elevation of temperature. A forcible injection of the same amount of water produced a slight increase of temperature. A fluid containing immense numbers of bacteria was then filtered repeatedly, with great care; and, though not absolutely freed from bacteria, still the relative amount of them was slight. Injections of both unfiltered and filtered fluids produced a like elevation of temperature, and the inference was drawn that the febrile condition did not depend upon the simple presence of bacteria. It was considered probable, however, that the rise in temperature was due to the products of their vital activity, as the fluid used raised the temperature only when the bacteria had existed in it for some time.

Tuberculosis.—This subject gave rise to a prolonged discussion, at the last meeting of the Association of German Naturalists and Physicians at Wiesbaden, in which Virchow, Rindfleisch, Koester, Waldenburg and others took part. In the *feuilleton* of the *Berliner Klinische Wochenschrift* (1873, No. 43), a tolerably full account is given, and an analysis of the more important results is presented.

It seems that Virchow maintains his earlier theory, though recognizing the deductions from the results of recent experiments. He, with others, contended against the view of regarding the histological structure of the tubercle as its sole criterion. The giant cells, to the presence of which so much importance has of late been attached, may be found entirely independent of tubercles, and their importance is, as yet, unknown. It was generally agreed that miliary tuberculosis is usually secondary in nature, and is not propagated through a specific virus.

With reference to the theory of Buhl† and Rindfleisch, concerning the nature of primary pulmonary phthisis, Virchow still maintained that the changes are due to an intra-alveolar exudation; if parenchymatous changes did take place, they must be secondary. Rindfleisch differed from Buhl by admitting the presence of pus (not simply degenerated epithelium) within the alveoli, but agreed with him, in opposition to Virchow, in regarding the primary condition as a parenchymatous alteration of the walls of the bronchioles and alveoli.

The idea of a local tuberculosis is by no means a new one, but it has been presented in such a form (Friedländer, *Volkmann's Sammlung Klinische Vorträge*, Dec. 1873) as to suggest the possibility of important modifications or extensions of the previously stated views.

* Journal, April 17, 1873, page 396.
† Journal, Oct. 16, 1873, page 382.

Koester (*Centralblatt*, 1873, No. 58) also records the observations made by him in relation to this matter. This investigator, as early as 1869, discovered miliary tubercles in the fungous granulations of inflamed joints. Since then, they have been found by him, and by Friedländer, in the granulations of carious bones, not only in the scrofulous forms of osteitis and osteo-myelitis, but, also, in ordinary caries. Though the former series might tend to strengthen the idea of an intimate relation between scrofula and tuberculosis, yet further investigations disclose the fact that the presence of tubercles may occur quite independently of the so-called scrofulous affections. In lupus, the new-formation, according to Friedländer, is composed almost entirely of minute tubercles. He finds them, also, in an ulcer of the os uteri from a person dying from apoplexy, there being none elsewhere in the body. Further, tubercles were found in connection with a tumor of the ear, and an ulcer of the cheek, presenting the appearance of rodent ulcer. They were seen upon the wall of a mammary cyst. Koester adds, as seats, the so-called benignant granulum of the conjunctiva, the granuloma of the iris, an ulcer of the tongue, an abscess of the breast, commencing elephantiasis of the pudenda. Even more striking was their presence in a chancre of the nose, and in one of the penis; they were, also, found in numerous ulcers, probably syphilitic, of the intestine. The granules found in all these cases presented the histological features of miliary tubercles; and if the anatomical basis of classification is accepted, the prognostic value of their presence must be very differently considered from what has hitherto been the case. The same is equally true of the symptomatology of miliary tuberculosis. [Through the kindness of Dr. Hayden, I have just been enabled to add to the above observations one of local acute miliary tuberculosis of the right pleura, occurring in a negress over 90 years old.—Rep.]

In general tuberculosis, there not rarely occurs a tuberculous affection of the joints, entirely analogous, anatomically, with the form occurring as a purely local affection. So with tuberculous orchitis and pericarditis. Friedländer prefers to regard the nodules in all instances as tubercles, and when they occur in lupus, fungous inflammations of joints, &c., independently of any general outgrowth, he considers them as belonging to the condition of local tuberculosis. This has considerable clinical importance. As Friedländer puts it, "the surgeon who found tubercles in an extirpated portion of the body, believed therefrom alone, with the utmost certainty, that the patient must lose his life. If the patient recovered, the diagnosis was either to be doubted, or the pleasing consolation was taken that the patient's life was saved by the thoroughness of the operation, as, otherwise, he must have died from general tuberculosis."

It is positive, however, that a patient may remain, for years, in otherwise excellent health, and, yet, all the while, suffer from a local tuberculosis. This experience has been repeatedly met with in the case of fungous inflammation of the joints, and is equally true of lupus and scrofulous ulcers. Friedländer's inference is that in general tuberculosis another factor must be considered, at present entirely unknown.

At the same time, a local tuberculosis is not to be regarded as benignant. On the contrary, experience shows, in the cases mentioned,

a very considerable degree of local malignity, to be found in a tendency to local extension, local recurrence after apparent removal by operation, or other therapeutic measures.

With regard to the frequency of a local tuberculosis of the lungs as a form of phthisis, the author regards it as more common than is usually admitted. He considers that the patient may recover from such a condition. It is a matter of every-day occurrence that the remains of local processes in the lungs are found; the fact of such being primarily tubercular, requires proof.

Though thus extending Virchow's theory, Friedländer is decidedly opposed to those who would overthrow the basis of this theory. He cannot agree with Wilson Fox in regarding the diffused parenchymatous infiltrations of the lungs in connection with the presence of tubercles as of the same nature. This requires the denial of the nodular form of the tubercle, and the reinstatement of the obsolete idea of the cheesy condition as indicative of the original tuberculous nature of the material.

He also opposes the idea of the production of tuberculosis through inoculation; an argument which has been regarded as, perhaps, the strongest proof of the infectious nature of tuberculosis. This opposition is based upon the anatomical character of the nodules occurring as a result of the experiment. They have not the typical structure of tubercles, they have no giant cells. They are simply an agglomeration of cells, with a tendency to central destruction. Koester had already regarded the nodules produced in the liver under such circumstances as more nearly allied to cirrhosis than to tuberculosis. So the granules occurring in the lungs after inoculation prove to be forms of lobular pneumonia. Hering, with the same evidence of their structure, regards them as tubercles, from their infectious origin and their nodular form.

What, then, are these nodules previously referred to, which have not the structure of tubercles, and yet have been so generally regarded as such? The author thinks that a clue may be obtained from the experiments of Burdon-Sanderson, who, by the inoculation of the products of acute inflammation, obtains a condition analogous to the forms of pyæmia, accompanied with the development of multiple abscesses. Are the products of chronic inflammation made use of in like manner, the so-called tuberculosis results; that is, the formation of multiple nodules with a tendency to slow destruction. As, in the former instance, an acute pyæmia occurs, so here a chronic pyæmia is present. The inoculated tuberculosis is simply a chronic pyæmia; and "we know but little more of the etiology of tuberculosis than we do of that of cancer."

The author closes this exceedingly interesting *brochure*, with the two following propositions:—

"First, we must endeavor to remove the tubercle, when it can be done without danger, for these bodies are pre-destined to destruction, and complete recovery can take place only after their removal; also, the source of a local infection, at least, is likewise removed.

"Secondly, only under very especial conditions should we determine to perform severe, mutilating operations, on account of tuberculosis as such, since we know that the same does not necessarily lead to a general infection, and may heal spontaneously."

[To be concluded.]

Bibliographical Notices.

A Clinical History of the Medical and Surgical Diseases of Women. By Robert Barnes, M.D. London. Philadelphia: H. C. Lea. 1874.

The rapid multiplication, in recent years, of books devoted exclusively to the diseases of women, is a noteworthy feature in medical literature to all who can remember the time when nearly the only authorities to which the young practitioner could refer were the detached essays of Lisfranc, Jobert, Balbirnie, Sir Charles Clark and perhaps one or two others. How meagre and unsatisfactory it all was! Then came the tedious, bitter, personal disputes as to the importance which could be rightly attached to abrasions, erosions, ulcerations, hypertrophies of the cervix (if, indeed, such affections were not wholly imaginary), the secretions from the neck and their diagnostic value, the morality of local treatment, and its relative importance as compared with constitutional.

Finally, as temper has given place to reason, crude conjecture to comparative certainty based upon more earnest anatomical, pathological and clinical research, the profession has come to recognize that there is no branch of the healing art, as applied to "the sex," of more importance, and probably none in which he who is thoroughly trained up to the present standard of knowledge is able to give so much relief. It is now admitted that neither local nor constitutional treatment alone will do, and that he who best knows how to combine or choose between the two in any given case is the most successful, and, with the works of Barnes, Duncan, Sims and Thomas for reference, every general practitioner may now find great satisfaction in the management of cases which, twenty years ago, were a puzzle and a bugbear to him.

The earlier chapters of the work before us are devoted to the anatomy of the pelvic organs. Though concise, the subject is clearly treated. A good description of the perinæum and its relations to these organs would have added to the value of this portion of the book. It is omitted altogether, or only alluded to incidentally. Then come several chapters treating of the subjective symptoms; and, for the completion of the matter of diagnosis, a chapter is devoted to the objective signs, and to the methods of obtaining them by physical exploration, either manually or by the use of the instruments described in a previous chapter.

The following sentences are noticeable as showing our author's appreciation of the necessity of careful attention to both *constitutional* and local treatment:—"Do not concentrate all attention upon one region of the body. Remember that the fault may be in distant parts; that disease in other organs may complicate disease in the pelvic organs. Do not, in short, fall into the deplorable snare of becoming a specialist . . . . . Do not [on the other hand] imitate the error of those who, whilst repudiating the idea of being specialists, and who, when in the presence of a case marked by disorder of the nervous system, heart, lungs, or abdominal viscera, carefully explore the state of the organs contained in the skull, chest and abdomen, yet scrupulously avoid exploring the not less important ones contained in the pelvis."

The evident tendency of the profession, in modern medicine, to specialism, is so manifest that it is hardly worth while to decry or attempt to resist it; in fact, we may fairly acknowledge that the vast range which the art has assumed may well claim a more decided subdivision of labor; but we can at least strive that this shall not be permitted until the intended specialist has acquired some practical acquaintance with general pathology and practice. The most successful specialism is that based upon this general knowledge, lacking which, its followers must be incompetent to encounter the constantly recurring emergencies and constitutional complications which attach more or less to every special case, whether it be of eye, ear, chest or pelvis.

The remaining two thirds of the book are devoted to the pathology of the ovaries, and the general and special pathology of the uterus. In the limited space allotted, it is impossible to give even a sketch of the treatment of these subjects. Two or three points of practical importance may be just alluded to. The remarks upon incision of imperforate hymen, for relief of retained menses, strike us as not altogether in accordance with the experience of others; for though our author has hitherto, as he confesses, followed the cautious method, he apparently inclines to a free incision and even the washing out of the cavity. The careful reader will doubtless incline to the safer methods, which Dr. Barnes himself suggests.

The chapter upon dysmenorrhœa is excellent. Dr. Barnes believes retention to be the essential cause; that the seat of the obstruction is at the os externum, and that, if the os internum be obstructed, it is generally due to flexion or angulation of the body or neck. In this he agrees with Dr. Matthews Duncan, in direct opposition to the well-known opinion of Dr. Bennett, who claims that there is always a vital contraction at the os internum, and that its absence is evidence of an actually morbid state. The importance of this distinction, both as an element in the diagnosis and as an indication for treatment, is very great. Our experience is decidedly in accord with the first-mentioned view. In three consecutive cases recently under treatment, dilatation of the external os gave entire relief. Dr. Barnes believes that the relief thus given is not permanent, and therefore prefers incision to dilatation. The difficulty of maintaining the patency of the os after incision is well known, and we think it very questionable whether ultimate contraction after healing of the wound is not quite as likely to follow, as after dilatation. However this may be, the fact that relief is given, even though it be only temporary, would go far to prove that the seat of the difficulty is at the external and not the internal orifice.

Among the diagnostic signs of tubal pregnancy and warning of impending danger, he gives (page 364) "flowing from the vulva" as the most constant. This has not been the experience in this vicinity. In more than half the cases reported, there was no external hæmorrhage. In the only case which has occurred to us, nothing caused suspicion of an abnormal condition, until the real state of the case was revealed by the acute pain and sudden syncope occurring an hour before death.

In the chapter on inversion of the uterus, no mention is made of the remarkable success of Dr. White, of Buffalo, in reducing this organ, the reports of which are so familiar to American readers. As American authorities are constantly quoted, it is probable that Dr. Barnes has never heard of these.

The remarks upon subinvolution of the uterus are well worthy the attention of all practical obstetricians. The necessity of a month's rest is well enforced, and the advantage of lactation, if only for a few weeks, is insisted on, a point deserving notice in these days of the nursing-bottle and "condensed milk." In former times, even "women nursed in luxury" were able to nourish their children luxuriously from the breast, and that, too, without exhaustion of their reproductive powers; but we all know how rare it is in these days to find a woman in the better classes of society who is good for anything as a nurse. The preventive means employed to hinder conception, from the fear of too rapid increase of the family, may fairly be chargeable with a large share of the ovarian and uterine disease so prevalent, to say nothing of this deficient performance of the mammary function. The normal excitement of these organs tends to vigorous health. Abnormal excitement of their functions is resented by them, and such indulgence must pay the penalty of hyperæsthesia and local congestions, with their train of evils.

In conclusion, we must express our conviction that, in view of the wide range of subjects compressed into a single volume, this book is admirable for the conciseness and clearness with which practical points are treated, and evidently from a large experience. For students, and indeed for a good many of those who for want of time cannot, or for want of inclination will not, be students, it is a safe and satisfactory guide, and no one who attempts

to treat the diseases peculiar to women can afford to be without it. The volume is profusely illustrated; many of the cuts are new to gynæcological literature, and most of them are essential adjuncts to the text. G. H. L.

BOOKS AND PAMPHLETS RECEIVED.

First Annual Report of the Secretary of the State Board of Health of the State of Michigan. Lansing. 1874.

Nova Scotia Hospital for the Insane, Halifax, N. S. 1864. Pp. 64.

Conjugal Sins against the Laws of Life and Health, &c. By Augustus R. Gardner, A.M., M.D. New York: G. J. Moulton. 1874. Pp. 240. (From Noyes, Holmes & Co.)

Remarks on the Management of the Intermaxillary Bone in Double Harelip. By W. R. Whitehead, M.D., Denver, Colorado.

THE INFECTION OF SMALLPOX.—Dr. Zuelzer, of Berlin, has just published the results of some experiments which he has made on monkeys (cercopithecus) with variolous matter. About a drachm of blood from a severe case of smallpox, and about the same quantity of pus from the mature pustules of another case, were made into small balls with bread-crumb and given to two monkeys. Both remained well. Ten days later, the hair was cut, without injuring the skin, from a part of the back of one of these monkeys. A piece of charpie charged with variolous pus was laid on the spot, covered with a watch-glass, and secured by strips of adhesive plaster, till the end of three hours, when it was removed and the place washed. No infection followed. Twelve days later, some blood from a severe case of variola was inoculated into several parts of the back and inner surface of one of the thighs of the same animal. The blood used contained a very large number of globular bacteria. On the sixth day after the inoculation, the temperature began to rise, the normal in the rectum being in the morning about 100.4° Fahr., and in the evening 102.5°; and on the seventh day it was 105.5° to 106.4°. The animal lost its appetite, but this returned on the ninth day. Red spots appeared in great abundance on the rump, and single ones on the back, on the inner surface of the thigh, and on the mucous membrane of the fauces; they soon developed into papules, some of which became flat pustules, which soon burst. To test the possibility of conveying infection through the breath, a quantity of desquamated epidermis from smallpox patients, and small pieces of linen impregnated with their blood and pus, were used. These were placed in several small, gauze bags in a wooden cage, which was often shaken. A small wire basket filled with the same materials was also given to an animal to play with. It sickened on the fifteenth day, presenting the same symptoms as in the former case. Dr. Zuelzer arrives at the following conclusions: 1. The blood of variolous patients is infectious. 2. Infection does not take place through the digestive apparatus nor, probably, through the sound skin. 3. Infection takes place through inoculation, and, also, through the respired air, when this is sufficiently charged with the poison.—*British Medical Journal.*

ICED-WATER ENEMATA IN DYSENTERY.—Dr. B. Wenzel has related in the *Berliner Klinische Wochenschrift* a series of successful cases of dysentery treated by enemata of iced water. They arrested both hæmorrhage and tenesmus, and reduced pyrexia; and, after one trial, a patient would call for another enema as soon as the pain recurred. Only rarely was opium given, the treatment being confined to iced water alone. In acute cases, he cured. In old chronic cases, the benefit was temporary, as in all other modes of treatment. Whilst, therefore, this plan gives relief in chronic cases, Dr. Wenzel concludes that in acute or recent cases it is the most effective at our disposal.—*The Doctor.*

Boston Medical and Surgical Journal.

Boston: Thursday, April 16, 1874.

The question of Expert Testimony is again before the Legislature. At a recent hearing before the Judiciary Committee of the Senate, the importance of some legislative action upon the subject was urged by committees of the American Academy of Arts and Sciences, the Suffolk District Medical Society, the Boston Society for Medical Observation and the Boston Society for Medical Sciences. The Hon. Emory Washburn, Chairman of the Committee of the Academy, presented the following draft of a bill designed to remedy the existing evil, and spoke at length on the various provisions embodied therein. We have already pointed out, in the pages of this Journal, that a united effort of the scientific and legal professions is necessary, in order to bring about a reform in this matter. The difficulty of effecting such a union is due, mainly, to the difference between the scientific and legal methods of investigation. The legal mind can conceive of no better way of reaching the truth in any question than by an argument between two persons, each strongly prejudiced in favor of a particular view, and ignoring or making light of all facts inconsistent with such view; while the man of science, in his search for truth, endeavors, conscientiously, to free his mind from all prejudice, and to reach a conclusion consistent with all well-established facts and observations.

This radical difference in habit of mind will very likely make it impossible to draw a bill which will be equally satisfactory to all concerned, but it is not too much to hope that, when the need of reform shall be thoroughly recognized by all professions, legal ingenuity may be able to devise some plan to prevent the repetition of such occurrences as have recently disgraced the administration of criminal law.

An Act concerning the Testimony of Experts.

Be it enacted, &c., as follows:

Section 1. Whenever the District Attorney of any district in the Commonwealth, or the Attorney-General, shall be informed of the death of any person in such district, and that there is reasonable cause to suspect that the same is a case of homicide, and he shall be of opinion that it is proper to cause a scientific investigation to be made into the causes and circumstances of such death, it shall be his duty forthwith to apply to one or more of the justices of the Supreme Judicial Court to appoint one or more discreet and experienced experts, who shall be deemed to be competent to conduct such investigation, and to form a conclusion upon the questions involved therein. And said justice or justices shall thereupon select and ap-

point such expert or experts accordingly. The compensation which shall be adjudged reasonable by the Court for the services of such experts, together with the costs of making such investigation, shall be allowed and paid in the same manner as other costs in criminal proceedings.

Section 2. If, in the trial of any issue in any of the courts of the Commonwealth, the presiding judge shall be of opinion that the testimony of one or more expert witnesses, versed in matters of skill or science, a knowledge of which is material to a satisfactory determination of such issue, may be useful or important in such trial, it shall be competent for such judge, upon the application of either party to such issue, and after a hearing of such parties, if they shall desire it, to select and appoint one or more such expert witnesses, and to require their attendance to give testimony in such trial. And the witnesses so selected and appointed shall attend and be examined in the same manner as other and ordinary witnesses, when testifying in the trial of such issues. The court shall allow such witnesses, for their services and attendance in such trial, such sum as may be adjudged reasonable, to be advanced and paid as is provided in respect to the fees of ordinary witnesses. And the sums so advanced and paid by either party, if prevailing in the suit, shall be charged by and allowed to him as a part of his costs, as in the case of other witnesses, unless the court for good cause shall order otherwise.

Section 3. Neither party shall be entitled to claim a delay or continuance of any trial, for the purpose of calling in the testimony of expert witnesses, unless the court shall be satisfied that there has been no unreasonable delay in making application for such appointment.

Those who believe that the system of medical education now employed at Harvard is superior to that of any other medical school in the country, and is destined to bring about a reform in a department of education which, when compared with others, might be looked upon as almost medieval in its crudeness, may be glad to learn that the good example has not entirely been thrown away. An earnest protest against the existing evils has been lately made by the *Philadelphia Medical Times*, on the occasion of the graduation of some three hundred raw medical students from the Colleges of Philadelphia.

Those who are not familiar with the brief period of study actually required by many schools in this country would do well to read the remarks referred to. Every member of the profession, however, ought to be alive to the imperfections of our national system of medical education. Those who are, on the other hand, will read with satisfaction the tribute offered by the same journal to the earnest efforts of Harvard in the cause of reform. In an allusion to the medical schools of Philadelphia, whose faculties, be it remembered, can number among their members some of the best known men in the country, it says:—

"We do not doubt that the standard of graduation with these

schools is as high as that of any similar institution in the country, always excepting noble Harvard ; and the opportunities they offer for clinical study are almost unrivalled.

If any student has the nerve and muscle to contend with New England climate, customs and examination, and desires to get the most valuable diploma in the country, Harvard should be the school of his choice, and Boston his wintering city. To those of not such robust faith, purpose and ability, we can heartily commend Philadelphia and its colleges."

One or two expressions in our editorial comments last week on the methods employed for the removal of night soil did unintentional injustice to the City Board of Health, and we desire to correct any false impression that may have been given. The Board is quite alive to the importance of some improvement in the system of night-scavenging in vogue in this city, and many months ago urged the adoption of the odorless method on the Committee on Health of the City Council, with whom the matter of the contracts lies ; indeed, the apparatus was tested here with that end in view. Moreover, we should have stated that the contractors are compelled by the terms of their contracts to disinfect every vault before its contents are removed, this condition having been introduced at the instance of the Board. We were in error in placing the responsibility of the present system on the Board of Health, for we learn it is the fault of an ordinance which divides important sanitary functions. We trust that those who have the improved city charter in hand will take care that *all* sanitary duties and responsibilities, including the cleaning of streets, the removal of house offal and the disposal of night-soil, shall be put under the control of the Board of Health, where they properly belong.

Latour and Ollivier on Morbid Sweating of the Feet and its Treatment.—Dr. Debrousse Latour has lately published a thesis on local sweatings, in which the unpublished observations of M. Ollivier are incorporated. (*London Medical Record*, March 18, 1874.)

The forms of local sweating which offer the greatest number of interesting points are, according to Hebra, those which affect the armpits, the genital organs, the palm of the hand, and the sole of the foot. Regarding the latter, an elevation of temperature for the time being brings about a really insupportable condition of disordered function. The causes of this morbid perspiration are little known; it is not an attribute of the lymphatic temperament, nor always of a want of cleanliness; it is not contagious nor hereditary.

There is a conviction among the French medical profession, which the author also holds, that it is dangerous to suppress habitual sweating of the feet. "Perhaps, however," remarks Latour, "we must here draw a distinction between patients having a good constitution and those predisposed to pulmonary phthisis or phlegmasiæ of the respiratory organs."

The hygienic treatment of this morbid state in delicate patients consists in avoiding sudden cooling of the feet. The patient should wear stout shoes or

boots and woolen stockings, which should be changed frequently. If, in consequence of a chill, sudden suppression of perspiration be followed by any unpleasant consequences, the sudorific hypersecretion should be brought on again by the use of very hot foot-baths, and afterwards by wearing woolen socks covered with oiled silk, or even stockings sprinkled with chlorhydrate of ammonia mixed with quicklime, in the proportion of two parts of the latter to one of the former. As a means of diminishing the disagreeableness of excessive and fœtid perspiration, the following disinfectants may be used with advantage; the solution of permanganate of potash (0·05 centigrammes to 250 grammes of water), or the solution of tincture of coal tar (1 gramme to 250 grammes of water). If the epidermis becomes softened by maceration, if it falls off, leaving the *retê Malpighii* exposed, and thus renders walking painful and difficult, Hebra recommends that the soles of the feet and the toes should be coated with a mixture of equal parts of compound diachylon plaster and linseed oil, which should be melted before it is used; the excoriated portions should afterwards be covered with linen. If the constitution of the patient warrants more active treatment, lighter boots and thread stockings should be ordered, together with lycopodium, charcoal, and tannin powders.

M. Gaffard recommends allowing some drops of the following liquid to penetrate between the toes:—

Red oxide of lead,	1 gramme.
Solution of subacetate of lead,	29 grammes.

M. Ollivier succeeded with Barèges water and cold douches. Lotions with aromatic vinegar will also be found useful. Another means consists in spreading frequently on the secreting parts clay softened in water and passed through a sieve. As to medicines given and praised as specifics, MM. Ollivier and Latour are convinced that they are powerless against perspiration of the feet and other local sweatings.

Formula for Tape-worm.—The following mixture is recommended, in *The Druggist's Circular*, as perfectly safe and capable of expelling a tape-worm, alive and entire, *within two hours*:—

Take bark of pomegranate root,	½ ounce.
pumpkin seed,	½ drachm.
powdered ergot,	½ drachm.
ethereal extract of male fern,	1 drachm.
powdered gum arabic,	2 drachms.
croton oil,	2 drops.

The pomegranate bark and pumpkin seed should be thoroughly bruised, and, with the ergot, boiled in eight ounces of water for fifteen minutes, and then strained through a coarse cloth. The croton oil should be well rubbed up with the acacia and male fern, and then formed into an emulsion with the decoction. The worm is generally expelled with the head fastened to the side of its body at about its widest part, while the body is frequently twisted and doubled into various knots, the result of the distress caused by the powerful medicine.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, April 1 and 4, 1874.)

Operations were performed in the following cases:—Cancer of Lip, Abscess, Epulis, Chalazion, Molluscum, Paraphimosis, Foreign Body in the Ear, Cyst, Deformity from Contracted Hamstrings.

Cancer of Lip—in a man. The disease was superficial and limited to the lower lip. Removed by a V incision.

Abscess—of the malar region, in a man fifty-five years old. It was of four weeks' duration, and followed the removal of a tooth from the upper jaw.

Epulis—recurrent and located between two teeth, in the lower jaw of a middle-aged woman. The teeth were extracted on each side of the growth and the disease removed, together with the alveolar process from which it sprung, by the cutting forceps.

Chalazion—on the lower lid of a woman. Excised from the outside.

Molluscum—a single growth, located near the nipple, on the breast of a woman. Excised.

Paraphimosis—in an adult. The glans was not much swollen. Reduction was accomplished after slitting up the prepuce. Attention was directed to the collection of pus that had taken place behind the constriction, and to the caution necessary on the part of the operator, to protect himself from inoculation during contact with the parts.

Foreign Body in the Ear—of a child. It was removed, and, on examination, found to be half a pea.

Cyst—congenital, in the supra-orbital region of a boy twelve years old. It was excised, and proved to be deeply adherent.

Deformity from Contracted Hamstrings—in a boy of twelve years, following a blow upon the knee, caused by a fall between three and four years ago. The tibia was partly dislocated and rotated outward; the limb flexed at an angle of 45°. The hamstring tendons were divided subcutaneously, after which the limb was bandaged to a straight splint. H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE surgical operations last Friday, April 10th, were as follows:—

Dr. Williams operated for Convergent Strabismus in two cases, the patients being children. Ether was administered in both instances. Dr. Williams remarked that if, after rectifying one eye, a second operation was required to make the other eye straight, it had better be done later. The dressing after the operation should be very simple; a bandage over the eye is not desirable, since by its restraint it would tend to promote the reunion of the muscle too near its original insertion. The eye is left uncovered, and a simple lotion of water or milk and water is applied.

Dr. Ingalls performed Amputation of the Forearm in the case of a boy whose hand had been extensively crushed and lacerated, a fortnight previously, by machinery. Secondary inflammation, with extensive sloughing and burrowing suppuration, indicated the removal of the hand. The operation was by transfixion in the lower third of the forearm. Esmarch's "bloodless method" was applied.

Dr. Homans tied two Hæmorrhoids in the case of an adult who had suffered from them the last three years. They were pediculated, inflamed and bleeding.

Dr. Ingalls amputated a Scirrhous Breast. The growth was of six months' duration. The nipple was retracted and the skin adherent, though not ulcerated. There was only moderate pain. The axillary glands were normal.

Dr. Ingalls said that in removing growths of this kind, it was well, he believed, to use the knife as little as possible during the operation, the fingers being preferred to tear away the diseased tissues; by this latter procedure, there was less chance of leaving any part of the disease behind. With regard to the elastic cord, he believed the comparative merits of this method in removing cancerous growths were hardly determined at present. The operation of adjusting the ligature is not easy, the time required for the passage of the cord through the tissues is tedious, and we have yet to see whether the whole disease is removed as thoroughly by the rubber as by the knife.

Dr. Homans presented a patient with an Incised Wound of the Leg, op-

posite the head of the tibia, but not opening the knee. As a result of the injury, the whole limb had become greatly inflamed before the entrance of the patient to the hospital. The calf was now the seat of a burrowing abscess, without a free opening for drainage, and the lymphatics of the thigh were engorged. A counter-opening was made at the lower and posterior part of the calf, and a silk seton passed to promote drainage of the pus.

Dr. Ingalls operated on a Fistula in Ano, by passing an elastic cord to constrict the tissues between it and the anus, and to gradually slough out. The patient was phthisical.

On Wednesday, April 8th, Dr. Williams performed the Median Flap Operation in two cases of cataract, in a patient of 68.

On Thursday, the 9th, Dr. Homans Amputated the Thigh in the case of a man who had suffered a compound and comminuted fracture of the condyles and lower third of the shaft of the femur. The compound opening was very small, but the bone was extensively crushed. F. W. DRAPER.

Correspondence.

RUSTICUS ON CONSULTATIONS.

DOWN EAST, March 30, 1874.

I HAD a consultation one day last week with Dr. A. B., of ——. He is a man much younger than I am; fresh from hospitals, fresh from books; and, though pretty busy, he has got in him the recollection of what he has seen and read and heard within a few years. I was rather pleased with him for several reasons. He seemed to know what he was about, and he didn't seem all the time as if he was trying to teach me. I must confess that I got a good deal of information out of him.

This consultation business is rather peculiar work. There's good in it, and sometimes there's a little of the disagreeable; and, occasionally, a spice of the ridiculous. One man is very dignified, asks no questions of me before the patient or family. Another, equally dignified, asks them nowhere except before the patient or family. It is very difficult, I can tell you, to understand this last man. He knows more Greek and Latin than I do, and when he asked me if Miss What's-her-name suffered from "emansio mensium," and if I ever used "colpeurynters," I declare I wished myself back again forty-five years, studying Zumpt and Popkin with my old friends at Cambridge. I have had my revenge on him though, by since declining to have him come here.

What is the sense in Dr. Scribo's telling me what Sir James Somebody told him? Who cares, down here, if he has spoken to knighted or to benighted physicians abroad? It may give him a little repute with rapidly risen counter-jumpers, who have spent a fortnight in London or Paris, buying things to smuggle home. But it wont give him any credit in the village of Salvia, Maine.

What I like in a consulting physician or surgeon is his saying—"Well, Dr. Rusticus, you've been watching over this patient for five or six weeks, and you can't see what the matter is. I've heard your story, and I've looked into and considered every symptom and every part where there wasn't any symptom, and I agree with you perfectly." That is the sort of a man for a consulting physician, when I remember that, a year ago, he saw a patient with me, and, taking me into the next room, pointed out something which he had seen about the case and I hadn't. If he lives in the same town with you, you know he doesn't talk about your case to old Mrs. Marjoram; and if he's asked about a patient of yours that died, he simply says he don't know anything about the case.

Dr. Carbuncle does differently. If he has seen the case, he wishes he'd seen it a little earlier. If it is one of your friends he is talking to, he "knows it was all right, couldn't have been better managed;" but if one of his own

patients asks about the case, a case too that he never saw and knew nothing of except by non-professional description, why "He's sorry for his friend Rusticus, but can't help thinking there must have been some error somewhere." Go thy way, Carbuncle! For every patient you get in that way, you disgust two. I can see him now, sitting on an old Winsor chair tipped back, and playing stick knife on the kitchen table, while he is talking; stopping to pick his teeth with the blade, and then using the same instrument to deal out calomel and Dover's powder in bits of dirty newspaper.

Then there is Doctor Sinus, who is very glad of the fee which he will get for meeting you and giving you advice; but flies in a passion if he is asked to call you in, and talks about it as if it were almost criminal to take advice from a younger man. Bah!

We occasionally get some one here from the city, and find quite as much difference among city men as among ourselves. Some of them talk microscope, and some don't. Some of them know what they are talking about, and some don't. Some of them are gentlemen. Gentlemen don't need to be informed how to behave at consultations. To tell others, who are not gentlemen, how to behave, won't improve them. If I don't send for you again, therefore, Dr. Sinus or Dr. Anthrax, you may try and guess which class you belong to. Yours truly, RUSTICUS.

P. S.—I have received the new report of the Consumptives' Home, which you sent. Thanks.

VENESECTION IN PUERPERAL CONVULSIONS.

MILLBURY, MASS., March 30, 1874.

MESSRS. EDITORS,—Some of the statements in Dr. Whitney's recent communication concerning the treatment of puerperal eclampsia, it seems to me, may be fairly questioned, to say the least. He would always bleed, regarding anæsthetics and the bromides as only adjuvants, and opiates as only mischievous, though many judicious practitioners use hypodermic injections of morphia, as they believe, with signal benefit. He emphasizes his faith in this mode of practice by the remarkable assertion that, without venesection, seventy-five per cent. of the cases of puerperal convulsions will prove fatal. In a recent number of the *Medical Record*, appears almost equally extravagant laudation of veratrum in puerperal convulsions. In conversation with my neighbor, Dr. W. H. Lincoln, concerning this subject, we reviewed the cases we have seen during the last three years, and came to the conclusion that, till our experience changed very much, we should neither bleed "*coup sur coup*," in every case, nor give tincture of veratrum in twenty- or thirty-drop doses every fifteen minutes.

Our cases are not very numerous, certainly not sufficiently so to dogmatize upon, but perhaps they may be worth mentioning in this connection. We recall eight cases, all primiparæ but one. The convulsions in all of these were marked, and in many of them severe. We bled in only two cases. In the other cases, our reliance was bromide of potassium, very freely administered. Ether was administered during the convulsion. We have had but one fatal case. It is fair to say that the fatal case was one in which bleeding was not practised.

These figures differ very widely from Dr. Whitney's estimate of seventy-five per cent. of fatal cases without venesection.

One other case, in my own practice, might have been added, in which there was for several weeks before confinement most extreme general œdema, with extremely scanty urine, and so albuminous that, upon boiling a quantity in a test tube, the coagulation was so complete that the tube could be inverted without the loss of any of the urine. During the last two or three weeks of gestation, under the free use of a diuretic never before used by me (decoction of parsley), the œdema greatly subsided, and the urine greatly increased, though still very albuminous at the time of confinement. There being some troublesome nervous symptoms, such as headache and great excitability, I gave bromide of potassium quite freely up to the time of confinement

and a short time after. I certainly anticipated a troublesome case. There was a slight convulsive tremor and upward rolling of the eye just as the fœtal head passed the outlet, but beyond that nothing untoward occurred.

I doubt not, Dr. Whitney and many others would have bled this patient; nor should I find fault with that treatment, which I, indeed, felt strongly inclined to adopt, and had I done so, I should doubtless have concluded that a result as fortunate as that I realized without it was ample vindication of the wisdom of the procedure. Very truly, GEORGE C. WEBBER.

Obituary.

DR. ALFRED HITCHCOCK.

DR. HITCHCOCK, whose death occurred at his home in Fitchburg in the evening of March 30th ult., was born in Westminster, Vt., in 1813. The common school of his native town, the Bennington Seminary and the Andover Phillips Academy supplied all his preliminary instruction. He struggled, in the early part of his career, against heavy odds in obtaining the education to which he aspired, and against many physical obstacles which would have overcome a less determined spirit.

His medical studies were pursued in the office of Dr. David Allen, of Westminster; at Dartmouth Medical School, where he graduated in 1837; and at the Jefferson Medical College, Philadelphia, whose degree he secured in 1845. His first years of practice were passed in Ashby, Mass.; but since 1850, his home was in Fitchburg. Fortune did not immediately favor him at the beginning, and for many years he struggled with adverse circumstances; but his indomitable energy conquered in due time. For many years his skill and judgment have been specially prized by the community and the profession, as attested by frequent calls to attend cases in consultation. He was eminently a practical man, and he applied his knowledge with a shrewdness and a readiness which were the emulation of his professional associates, both surgical and medical. These traits, his persistent industry and singleness of purpose in the face of great obstacles, and his natural tact in making the most of every opportunity, were the characteristics of the man who has left his influence strongly marked on the community in which he lived.

As early as 1847, he represented his town in the Legislature; and afterwards, in 1861–63, he was a member of Gov. Andrew's Council during the most trying years of the civil war. On many occasions, he performed important special services at home and in the field; and the volunteer soldiers of Fitchburg regarded him as their particular friend.

The disease which caused the death of Dr. Hitchcock was angina pectoris. The attack was sudden, although he had been conscious of some cardiac disturbance for some time. A week before his death, he was awakened early in the morning by a severe pain in the cardiac region, extending also to the left arm. Left hemiplegia came on very soon, accompanied by a partial loss of consciousness and by extreme feebleness of the circulation. Most of these symptoms subsided, however, during the next six hours, the left hand alone remaining paralyzed. Except extreme restlessness and insomnia, the subsequent symptoms were not specially marked till within five minutes of his death, when rigidity of the body and stertorous breathing ensued suddenly.

At the autopsy, the right coronary artery was found to contain an *antemortem* clot, completely obstructing the vessel. That portion of the wall of the left ventricle apparently nourished by this artery had undergone acute consecutive degeneration, as shown by the gross appearances and by the microscope. There was moderate dilatation of the cavities of the heart, and the microscope detected fatty degeneration of the walls in slight degree. In the brain, capillary apoplexy was found in the grey matter of the right side, and the cerebral tissue was softened. A similar appearance, without the softening, was found also on the left side. The vessels at the base were somewhat atheromatous.

Medical Miscellany.

Dr. J. B. S. Jackson sailed last Saturday for Europe, for an absence of four months.

The *Lancet* rejoices in the fact that the Pullman cars have been introduced into England.

Ascarides.—According to Szerleki, of Mulhouse, ascarides are effectually removed by injections, daily for a few days, of six to eight drachms of pure cod-liver oil.

Any part of the bone of a man's arm, with the biggest end of a goose-wing being borne about one that hath a quartan ague, cures them.—*Culpeper*, 1656.

There is a stone to be found in the head of a long snaile, which being beaten into a fine powder and blowne into the eye, takes away the web, spots, or other infirmities that annoy it.—*Culpeper*, 1656.

Chilblains and Coryza.—For chilblains and chaps: alcohol, 100 parts; glycerine, twenty-five parts; and carbolic acid, one part. Powdered camphor sprinkled with tincture of iodine and inhaled by the nostrils, constitutes one of the most prompt and certain of remedies in coryza or "cold in the head."—*Medical Times and Gazette*, from *Révue Medico-Photographique.*

Dr. Joshua B. Treadwell has been appointed Assistant Surgeon-General of the State, with the rank of Colonel. During the war, he was Assistant Surgeon of the 45th and 54th Volunteers, promoted to the Surgeoncy of the 5th, and afterwards Surgeon of the 62d Volunteers. He is now President of the Board of Examining Surgeons for U. S. Pensions. The vacancy left by the death of Dr. Hooker has been well filled.

A Formula for Neuralgia.—Dr. Edward C. Huse has employed with success, in a large number of cases of neuralgia, the following combination of ergotine with the phosphide of zinc.

℞. Zinci phosphidi, ʒi.;
Ergotin, gr. v.

In pilulas No. 60 dividend.

One pill to be taken after each meal.—*The Richmond and Louisville Medical Journal.*

Ovariotomy.—Dr. C. G. Wheelhouse, of Leeds, expresses the opinion that the result of the operation of ovariotomy is largely influenced by the condition of the peritoneum at the time the operation is performed. He affirms that there is an *altered structural condition* in this serous membrane when it has been for a long time distended by the presence of fluid, by which its sensibility and power of absorption is diminished. The danger of traumatic peritonitis and septicæmia is, therefore, greater if operation is resorted to in the early stage of the disease, when the patient is in robust health, the chances of success being more favorable if the operation is delayed till the constitution is somewhat enfeebled by disease.

American Medical Association.—The twenty-fifth annual session will be held in the city of Detroit, Mich., on Tuesday, June 2d, 1874, at 11, A.M. Secretaries of all medical organizations that have adopted the Code of Ethics are respectfully requested to forward to the undersigned a complete list of their officers, with their post-office addresses, and the number of their members in good standing. This is the only guide for the Committee of Arrangements in determining as to the reception of delegates. It will also enable the Permanent Secretary to present a correct report of the medical organizations in fellowship with the Association.

Wm. B. Atkinson, M.D., *Permanent Secretary.*

For sore and swelled throats, first rub your hand upon the bare ground, and then presently rub the throat with it; do so oftentimes, and you shall quickly perceive both soreness and swelling will quickly go away.—*Culpeper*, 1656.

Powerful Oratory.—A young lady, apparently in her usual good health, was greatly affected by listening to a discourse of the Rev. DeWitt Talmage on the subject of eternal punishment. At the conclusion of the sermon she fainted, and was carried out of the church, but died before her friends could get her home. An inquest was held, which resulted in showing that death was caused by heart disease, hastened by mental excitement.

A meeting of the Alumni of the Albany Medical College was held in the College building, on Tuesday, January 20th, 1874, called for the purpose of forming an association to be known as the "Association of the Alumni of the Albany Medical College." Nearly one hundred graduates gathered at this meeting. A constitution and by-laws were presented and adopted, and officers elected for the ensuing year. The Albany Medical College is now incorporated with Union College of Schenectady, the Albany Law School, and the Dudley Observatory, under the name of the Union University of the State of New York, of which it forms the Medical Department. Graduates are requested to send their address to the Secretary, Willis G. Tucker.

Scientific Medicine in America.—"If we omit Brown-Séquard—a cosmopolitan bird of passage—Leipsic, a town about the size of Providence, contributes to the world in a single year more in physiology that is worth the looking at than does America in a decade. Not because the German intellect is superior to the American, but because the Germans elect professors who are workers, and would eject as a *lusus naturæ* one who did not continue to work whilst holding his position; and because the Germans encourage young men, and give them the training and opportunities for work and guidance in their early flights."—*Philadelphia Medical Times.*

NOTES AND QUERIES.

Croton Chloral.

Messrs. Editors,—I stated that after cutting croton oil in absolute alcohol, it was to be treated with chlor (not chloroform, as was printed in the Journal). Schering's preparation of croton chloral is a fine powder, without the appearance of crystals to the naked eye. Would not S. G. W. like to call and see for himself? L. Babo.

Died,—At Dover, N. H., 7th inst., Jasper H. York, M.D.

Mortality in Massachusetts.—*Deaths in fifteen Cities and Towns for the week ending April 4*, 1874.

Boston, 164; Worcester, 21; Lowell, 22; Milford, 5; Chelsea, 8; Cambridge, 18; Salem, 6; Lawrence, 12; Lynn, 14; Fitchburg, 6; Newburyport, 1; Somerville, 11; Fall River, 19; Holyoke, 2; Pittsfield, 2. Total, 311.

Prevalent Diseases.—Consumption, 56; pneumonia, 43; scarlet fever, 17; typhoid fever, 12.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, April 11th, 152. Males, 74; females, 78. Accident, 1; apoplexy, 2; asphyxia, 1; disease of the bladder, 1; bronchitis, 9; congestion of the brain, 2; inflammation of the brain, 1; disease of the brain, 4; cancer, 3; cholera infantum, 1; consumption, 28; convulsions, 5; croup, 3; debility, 7; dropsy, 2; dropsy of the brain, 3; drowned, 1; diphtheria, 1; exposure, 1; epilepsy, 2; scarlet fever, 3; typhoid fever, 2; gastritis, 3; disease of the heart, 8; imperforate anus, 1; disease of the kidneys, 5; congestion of the lungs, 3; inflammation of the lungs, 17; laryngitis, 3; marasmus, 7; mortification, 1; old age, 3; paralysis, 3; pleurisy, 2; premature birth, 1; peritonitis, 1; puerperal disease, 6; rheumatism, 1; tumor, 1; whooping cough, 1—unknown, 2.

Under 5 years of age, 51; between 5 and 20 years, 10; between 20 and 40 years, 35; between 40 and 60 years, 27; over 60 years, 29. Born in the United States, 104; Ireland, 34; other places, 14.

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Original Communications.

ON MALIGNANT SCARLET FEVER.

By Edward T. Williams, M.D., of Roxbury.

Read before the Norfolk (Mass.) District Medical Society, March 11, 1874.

It is designed to embrace here all cases of scarlet fever attended at any period of their course by malignant symptoms. The group of phenomena thus designated are familiar to every physician, and are equally common to many other forms of febrile disease, both specific and non-specific. Their essential feature seems to be a profound depression of the nervous system, marked by coma or low delirium, great weakness of the heart and respiration, and general stagnation of the blood. Their production is variously explained. Some ascribe it to the direct action of a specific poison; but the most scientific view, as it seems to me, is the following: The poison or irritative cause, whatever its nature, excites fever, that is to say, an increase of combustion or retrograde metamorphosis of tissue; the formation of organic waste, exceeding the rate of elimination through the natural channels, causes an accumulation of waste products in the blood, thereby poisoning it and producing a set of phenomena analogous to those caused by urea, bile, carbonic acid, the septic poisons and various narcotic drugs. The resemblance between the action of these poisons and the phenomena of malignancy in disease (leaving the febrile element out of the case) is too obvious to be dwelt upon more minutely. Such is the doctrine of Murchison, one of the highest living authorities on the subject, of the causation of malignant symptoms in fever. Assuming this view as the correct one, the indications for treatment naturally arrange themselves under three heads:—

First, to diminish the formation of waste products.

Second, to promote their elimination.

Third, to counteract their effects.

I.—The essence of fever is combustion or destructive metamorphosis; the amount of waste depends on the rate of combustion; the rate of combustion corresponds with the intensity of the fever; hence, to diminish the formation of waste products is to allay the fever. The means for this purpose are numerous. Diet, rest, water, ice, nauseating doses of ipecac and antimony, cathartics, the cooling salts, aconite and veratrum, bleeding. I believe that the proper use of these remedies both diminishes and prevents the formation of malignant symptoms. To effect this, they should be employed early, and only during the acute stage of the fever, as indicated by a high tempera-

ture and a strong as well as rapid pulse. The moment symptoms of malignancy become developed, they must be discontinued on account of their depressing influence on the powers of life.

Of the remedies enumerated, my own preference is for the nauseants, cathartics, and cooling salts, on account of their convenience of administration, entire safety, and peculiar effect on the secretions. Their overaction must be carefully guarded against. Veratrum viride and aconite, though effective, are hazardous, and require close watching. Cold bathing requires attendance and conveniences not always met with in private practice. Bleeding, universally and properly resorted to before the discovery of other methods of depressing the circulation, has been justly set aside as depriving the system of what will be most needed when the temporary crisis has been bridged over and the period of debility reached.

It has been the fashion of late years to cry down antiphlogistic treatment. This proceeds from two causes: first, its undeniable abuse, especially in former times; secondly, its qualified adaptability to the inhabitants of large cities. It has been shown by an eminent statistician that the rate of mortality in a community regularly increases with the crowding together of population; without doubt, the amount and liability to disease follow the same law; certainly, the average vigor of city people is less than it is in the country, even the wealthier classes, from their sedentary and artificial lives, being scarcely better off in this respect than the squalid poor; they cannot bear depletion as country people can. Hence high authorities in these days, bred up to city and hospital practice, have set their faces against it altogether; yet when we consider that antiphlogistic treatment in some form or other (and the cold baths and aconite of to-day are just as much antiphlogistic treatment as the bleeding and mercury of a few years ago), when we consider that antiphlogistic treatment has constituted the staple reliance of the medical art for over two thousand years, and is so to-day with the great majority of physicians throughout the world, it is extremely hard to doubt either the substantial advantages of its employment, or its final destiny to triumph over the prejudices excited by its misuse and eventually to resume its legitimate therapeutical rank. The only point is not to use it, or to use it very sparingly indeed, with delicate and enfeebled persons.

In scarlet fever, at all events, I, for one, have thoroughly convinced myself of its efficacy in delaying the access and modifying the severity of malignant phenomena, as well as in preventing their occurrence. My entire experience with diseases of a malignant tendency, small-pox, typhoid and typhus fever, cerebro-spinal meningitis, &c., is in full harmony with these convictions, and has led me to place much confidence in them. I must believe, therefore, that a judicious, antiphlogistic treatment in the early stage is the grand preventive and panacea for malignant scarlet fever, the only exception being those very rare cases where the malignancy is absolutely simultaneous with the outbreak of the disease; such cases should be treated upon principles to be discussed presently. Of course, I use the word panacea in a rational sense, without denying that many patients do and must die under this or any other form of treatment.

II.—The second indication for treatment is to promote the elimination of waste products. The agents of elimination being the natural

emunctories, the kidneys, skin, bowels, liver and lungs, medicines which increase the action of these organs will promote elimination, viz., diuretics, diaphoretics, cathartics and emetics. Most of these medicines serve the additional purpose of depressing the circulation, and have been sufficiently dwelt upon in the preceding remarks. The use of emetics to the extent of producing vomiting is an old-fashioned practice, quite abhorrent to the fastidious taste of the present day; I have found them serviceable, notwithstanding, especially when malignant symptoms are just beginning to show themselves; under these circumstances, a full dose of ipecac, with jalap-resin, or some other prompt cathartic, seconded by the free administration of hot drinks, often produces an admirable effect; the portal vessels are disgorged, the skin and kidneys excited to action, and the nervous system stimulated into a new life; a total disappearance of the malignant symptoms and the establishment of a favorable convalescence not infrequently succeeds.

It is hardly necessary to remark that eliminative, as well as antiphlogistic treatment, is too depressing to be continued after malignant symptoms are fully developed.

It remains to consider the eliminative function of the lungs. The increased formation of carbonic acid in the tissues, requires an increased activity of the lungs for its elimination. This is partially provided for by nature in an increased activity of respiration. It is the physician's duty to see that the lungs are abundantly supplied with fresh air. The free ventilation of the sick chamber becomes, therefore, a matter of prime importance. But, in bad cases of scarlet fever, the mouth and fauces of the patient are loaded with fœtid accumulations, by which every breath of air is contaminated and rendered unfit for respiration before it enters the lungs. We know what the expired air is, from experience; consider, then, the condition of the sick patient condemned to batten upon exhalations which turn the stomach of a well man at the faintest whiff. The throat must be cleansed out by gargling and swabbing with chloride of soda, permanganate of potash, salt and vinegar, or some other antiseptic and stimulating wash. I make this an indispensable part of the treatment, even with the youngest children; for the filth, if not removed, will be swallowed, and form a new focus of malignant influence.

III.—The third and last indication is to counteract the effects of the accumulated waste on the system. The most dangerous of these effects is the failure of the heart through innervation. Keep the heart beating, and elimination may complete itself, but the stoppage of the heart is death. The respiratory function is equally important; the moment the breathing flags, carbonic acid begins to accumulate in the blood, producing lividity of the surface and eruption, an increase of coma and weakness, and, by degrees, complete asphyxia. Hence, the necessity for stimulants in doses sufficient to produce a decided improvement of the pulse and breathing. They are not to be given for the coma, delirium, restlessness, lividity, or imperfect development of the eruption, but to stimulate the heart and respiration, whose rate and mode of action form the only true indices of their successful operation. The general looseness of writers on these points is, I believe, the cause of the wide discrepancies of opinion as to the indications and benefits of stimulants in disease. The best stimulants are animal

food, alcohol, carbonate of ammonia, camphor, opium in stimulating doses, quinine, nux vomica. Heat, if deficient, must be supplied artificially. I once saw a person profoundly comatose for more than a week, pulseless at the wrist, with extremities cold and livid to their junction with the body, and jaw drooped as in death, restored to life and consciousness in half an hour by the application of mustard along the spine, after every internal remedy had been tried in vain.

Such cases impress us with the supremacy of art over nature. Art saves when nature alone succumbs. It is the prerogative of Intelligence to govern and direct natural processes, and to counteract them when they tend prematurely towards death.

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

[Concluded from p. 383.]

Cholera and Typhoid Fever.—The action of cholera evacuations on dogs and rabbits was investigated by Högyes (*Centralblatt*, 1873, p. 787). It was concluded that their action was injurious upon different animals to a different degree, manifested by an inflammatory alteration of the stomach and intestine. The animals were rendered more susceptible to this by the previous induction of a gastric or intestinal catarrh. Where the respired current of air was saturated with particles from non-disinfected cholera dejections, the same symptoms were produced as from their immediate action upon the stomach, colon, or venous system. The dejections disinfected by carbolic acid, seemed to be harmless. The air, in the former instance, carries germs which luxuriate upon a favorable soil, while, in the latter, such are incapable of reproduction. Finally, the cholera dejections, freed from morphological elements, can produce the same pathological action as those containing such elements.

With reference to typhoid fever, Birch-Hirschfeld (*Allgemeine Medicinische Central-Zeitung*, 1873, p. 1215) made some statements before the Association of Naturalists. A form of bacterium was found in the dejections in greater number than in those of other diseases. These are most numerous in the second and third weeks of the affection; and at the height of the disease the main part of the stools is composed of such. A microscopical examination of the blood gave negative results.

The attempt was made to produce the disease in rabbits. Subcutaneous injection of the unfiltered stools produced a local, phlegmonous inflammation, and death within four days. An examination of the intestines gave no positive results. In two instances, blood from typhoid patients was injected subcutaneously. Continued, moderate fever followed, and the animals died in two and three weeks, respectively. Considerable enlargement of the spleen was found, but no alteration of the intestines. Dejections were then administered by the mouth. Small, continued amounts produced varying results, none typical. The animals killed showed a slight swelling of Peyer's

patches. The single or repeated administration of large quantities (fifteen to twenty grammes) was efficacious according to the amount, particularly if the animals were compelled to hunger previously. Further, the dejections taken at the height of the disease were most active. The majority of the animals thus experimented upon died within thirty days after the first administration. The pathological changes consisted in a more or less pronounced swelling of Peyer's patches, especially at the ileo-cæcal valve and in the vermiform appendage. The infiltration of the patches was often very considerable; they were dirty-yellow or white, the individual follicles often run together. In the milder cases, or during retrogression, the patches were reticulated. In two rapidly fatal cases, small, ulcerated patches were found. The mesenteric glands were infiltrated, in the later stages cheesy. The spleen, in most cases, was considerably swollen. Pneumonia formed a frequent complication.

In a series of controlling experiments, simple diarrhœic stool produced gastro-enteritis, especially of the upper part of the small intestine, but no particular swelling of Peyer's patches. When the dejections were filtered, the sediment acted intensively, but more slowly; the filtrate produced a slight degree of infection. Küchenmeister informed the experimenter, toward the close of his investigations, of a spontaneous disease existing among rabbits which produced alterations of the intestines, resembling those occurring in typhoid fever. Bollinger remarked that similar experiments on dogs and pigs gave negative results, and that typhoid fever did not exist in horses, dogs, or cats.

Pathological Anatomy.

Pulmonary Apoplexy in connection with Cerebral Hœmorrhage.—It is well known that Brown-Séquard has produced, among other effects, hæmorrhages in various parts of the body, notably of the lungs, by lesions of the base of the brain, and of the brain itself. The results of these experiments have been regarded as almost constant. Ollivier (*Archives Générales*, 1873, p. 167) and Hughlings Jackson (*British Medical Journal*, 1873, p. 483) bring forward evidence to show that similar occurrences take place in connection with apoplectic hæmorrhages in the brain, Jackson even stating "the effects of any comatising lesions being included in this term" (cerebral apoplexy). Ollivier finds nodules of hæmorrhagic infarction on the side opposed to the seat of the cerebral lesion, while Jackson sees them in the lower lobes particularly. Ollivier attaches much importance to the volume of the cerebral hæmorrhage. It must be great enough to produce pressure at the base; and, in his cases, the blood had extended outwards beneath the arachnoid. When a less degree of cerebral hæmorrhage was present, the hæmorrhagic nodules in the lungs were absent.

The two observers differ as to theory of causation. Jackson regards the nodules as due to embolism, while Ollivier seeks an explanation from the experiments of Brown-Séquard, Bernard and Longet, and regards the changes as due to an irritation of the vaso-motor nerves. In his paper, he states that two cases are omitted, as there were cardiac lesions which might complicate the etiology.

Baréty (*Gazette Médicale*, No. 30; *Revue des Sciences Médicales*, 1873, p. 620) presented a number of observations bearing upon the same general point.

Aneurisms Caused by Emboli.—Ponfick (*Virchow's Archiv*, vol. 58, p. 528), after alluding to the permanent local effects of transported emboli, considers the possibility of peculiar physical alterations being produced by benignant emboli. He found a recent perforation of a small, arachnoidal artery and the adjacent membrane, with an embolus partly within, partly without the vessel. Also, a calcified body in a small sac connected and communicating with a similar vessel. Further, a centripetal, arterial dilatation in connection with an adherent embolus, and an aneurism connected with the splenic artery containing a small, white body. These appearances were observed in a case of recurrent, aortic endocarditis with numerous, in part calcified, vegetations. A relation of cause and effect was suspected, and for the past two years, while assistant at the Berlin Pathological Institute, he has examined bodies with reference to this point. Six analogous cases have been found, and a coincidence between valvular endocarditis and the formation of aneurisms was established.

The histological structure of the aneurism showed that, as a rule, the wall was new-formed, and not a simple, locally-expanded adventitia. The usual sources of aneurism were eliminated by negative evidence. Positive, were a recurrent, verrucous endocarditis of the left side of the heart, with vegetations in part calcified; arterial obstruction by vegetations and calcified bodies which must have originated from the valves; in several instances, these had perforated the wall of the vessel to a greater or a less degree, or were found entirely, or in part, in the aneurismal sacs. He considers that the emboli produced the aneurisms, on the ground of the rigidity and density of the emboli, their irregular, jagged surface, and the sharpness of their ends. As a result of the latter characteristics, the vessel is only partially obstructed, and, consequently, the amount of blood passing through, diminished in volume, has an increased velocity; thereby the rigid body is pushed farther into the wall.

Theoretically, there is no objection to the idea of softer clots leading to a perforation of the wall of the vessel, the other conditions being present. The seat of the embolus is most essential, it being always immediately beyond the point of division of an artery. Considerable importance is attached to the condition of the surrounding parenchyma, which was found to possess a slight degree of density (brain, fat tissue), therefore affording less resistance to the blood pressure.

Ponfick also considers that an acute aneurism of the heart may result from the repeated blows of vegetations attached to the semi-lunar valves against the parieties of the heart. This would be favored by a retraction of the valves, producing insufficiency. So with the valvular aneurism, the most frequent cause of the acute, partial aneurism of the heart, the cardiac ulcer of Rokitansky.

The common factor in the origin of these conditions is an abnormal body in the blood current, which has originated from successive deposits from the blood, and which is pressed against the wall with rythmical regularity by the force of the circulation. A necrosis of the wall occurs, blood is forced through this part into the region beyond, and, finally, a saccular tumor results, in permanent communication with the bloodvessel.

Rickets and Osteomalacia.—Heitzmann (*Allgemeine Medicinische*

Central-Zeitung, 1873, p. 8) made an interesting communication to the Vienna Medical Society concerning the origin of the disturbances occurring in such cases. He alludes to the experimental attempts to soften bones, by Guérin, through a flesh diet, Wegner, by phosphorus and simultaneous withdrawal of lime salts, and Chossat by the removal of lime salts from the diet. His own course of experiments was suggested by the recorded observations of the presence of lactic acid in the urine of those affected with rickets and osteomalacia, and in the fluid from cysts formed in cylindrical bones in cases of the latter affection. The lactic acid was administered in the food, and by subcutaneous injection. The supply of lime salts was limited, not entirely withdrawn. In the second week, appearances of rickets were noticed in dogs and cats, namely, swelling of the epiphyses of the long bones and of the external ends of the ribs. The swelling increased up to the fifth week, and the bones of the extremities became crooked. A catarrh of various mucous membranes, twitching of the extremities, and emaciation accompanied. The microscopic examination of the epiphyses furnished appearances completely corresponding with those observed in the epiphyses of rickety children.

The continuation of the lactic acid diet was attended with a diminution of the swelling of the epiphyses, and a certain degree of retrogression of the crookedness of the bones. The catarrhal condition was frequently repeated. After a period of four or five months, the cylindrical bones became softened, till, finally, they were as flexible as willow twigs, or fish bones. The cortical layer was thinned, the marrow contained a largely increased amount of blood. The scapula was thin, like parchment, and pliant. The microscopical examination of the bones, after a continuance of the diet from four to eleven months, presented similar appearances to those found in the bones of individuals dying from osteomalacia.

The rabbits experimented upon died from inanition, and presented no appearances of rickets or osteomalacia. A squirrel became affected with the latter condition, only.

His conclusions were that, in the carnivora, rickets may be produced at the outset; later, osteomalacia; while in the herbivora, the latter may result without a preceding rickets; and that the two processes are identical, the same agent producing rickets when the animal is young, and osteomalacia when older. A fœtus, of seven and a half months was shown, born from the woman who had fed the animals for many months previous. Death had resulted from sub-arachnoidal hæmorrhage, occurring during delivery. An extreme degree of rickets existed, the bones were cartilaginous to a very unusual degree, some crooked, giving evidence of intra-uterine fracture. The question as to the causative influence of the lactic acid in this case was left undecided.

Sir Thomas Brown says:—"Riolanus (1550) observeth that a man deaf from a bad conformation of the organs of the eare, pricking his eare too deepe, unawares pierced the tympane membrane and moved or broake the little bones, and afterwards came to heare: and, thereupon, proposeth the question whether such a practise might not bee attempted, which I confess I should be very warie to encourage; and I doubt few have attempted that course which he also proposeth agaynst the *tinnitus* and noise in the eares; that is to perforate the *mastoides*, and so afford a vent and passage unto the tumultuating spirits and winds."

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC.

Dec. 22, 1873.—*Lithotomy.*—Dr. H. J. Bigelow reported two cases, and showed the calculi.

I.—An old negro waiter, 60 years of age, and for many years an inhabitant of this city, entered the Massachusetts General Hospital on the 14th of last November, having suffered for about a year from pain in the back, and a sensation in the end of the penis that was relieved by pulling upon the prepuce. During the last six months, he sometimes had intense dysuria, and the urine, that had previously been free, would occasionally stop as suddenly as if it had been shut off by a valve. For some months, also, he had had spasmodic pain after micturition; much hæmaturia of late, and at several different times retention of urine. There was great agony when riding, and sometimes when walking. On the 15th, the operation was performed.

The stone, which is quite a large one, measures two inches and five eighths in length, two inches in width, and one inch in thickness; upon one surface there is moderate roughness, but upon the other the roughness is considerable, this last being probably the one that had been exposed in the cavity of the bladder; color, brownish upon the roughest or upper surface, and much lighter upon the other, with some crystalline appearance towards the edges. A broad and deep abrasion upon the upper surface is, of course, due to the action of the forceps in the extraction of the stone.

Chemical analysis, by Dr. Edward S. Wood:—Having drilled a hole into the under surface of the calculus, he found that it consisted of three portions:—

"1st. An *external crust*, which is rough, quite hard, and, when pulverized, leaves a white powder. It consists chiefly of the phosphate and oxalate of lime, but contains also small amounts of triple phosphate and the urates of sodium and ammonium.

"2d. A *middle layer*, between one eighth and one fourth of an inch in thickness, which is very hard and dense, and leaves a brownish dust when reduced to powder. It consists of uric acid and the phosphate of lime.

"3d. A *central portion*, which is quite soft, and furnishes a reddish-brown powder, which consists almost wholly of uric acid. It contains, however, a minute amount of the phosphate and oxalate of lime and triple phosphate. These last substances may have been derived from the external crust, since a slight admixture could not be prevented in drilling." The calculus weighed two ounces, three drachms and twenty-two grains.

Until the 26th, the patient did well, when there was found in his bed, in the morning, about a pint of coagulated blood. The pulse was weak, and he gradually sank, with a moderate amount of pain much of the time, but no further hæmorrhage. Death occurred on the 29th, at 1, A.M.

The bladder was not thickened, but was larger than natural, and everywhere, upon the inner surface, rough, without polish, and of a dark-greenish color, though not very offensive; lymph upon the incised

surface, but none within the bladder. Slight pleurisy; and, in the brain, the remains of an old clot that had not been suspected. The muscles also contained great numbers of trichinæ.

II.—A man, aged 37, entered the hospital on the 29th of last August; an inhabitant of this State, and a moulder by profession. For the last two or three years, he had had pain in the neck of the bladder during micturition, with sudden arrest of the flow of urine; also, acute pain when he rose from a chair or rode in a jolting vehicle. He was getting worse, and, on the day after admission, the operation was performed.

Until the 5th of September he did well, but on that day the wound was found to be sloughy. On the 8th, there was a chill, and during the three following days several others. On the 13th, labored respiration, with distressing cough, a muco-purulent expectoration mixed with blood, and physical signs of disease in the lower part of the chest. On the 15th, at 4, A.M., he died; and, though an examination was refused, there could be no question that pyæmia was the cause of death.

The calculus is spheroidal, considerably flattened, and measures one inch and one fourth by one inch and one eighth. Weight, since it was sawed and dried, one hundred and thirty-seven grains (avoir.). It consists mainly and uniformly of a coarse, brown, somewhat laminated and somewhat radiated structure; with a thin, whitish, granular deposit upon the surface.

Chemical analysis by Dr. Wood:—

"The *external coating* consisted of a mixture of oxalate and phosphate of lime.

"The *middle layer* consisted principally of the oxalate of lime mixed with a little phosphate of lime.

"The *central portion*, which was next the nucleus, had the same composition as the middle layer, although being a little darker in color.

"The *nucleus* has been shelled out in the process of sawing."

Aneurism of the Heart.—Dr. Shattuck reported the case and showed the specimen.

J. B. B., a Frenchman by birth and a jeweller by trade, 44 years of age, entered the Massachusetts General Hospital December 25, 1871. He reported that he had not felt well for a year. His abdomen had been swollen for four months, but he had kept at his work until within a fortnight, when he took to his bed, which he kept mostly on account of dyspnœa and weakness. He stated that for a considerable time he had been unable to lie on his right side.

On entrance to the hospital, the abdomen was much distended, flat inferiorly. The sounds of the heart were slightly modified. The respiration was normal. On examination, the density of the urine was found to be increased; it contained neither albumen nor bile. The urea, chlorides and earthy phosphates were normal, but the urates were abundant.

It was thought that the patient might have cirrhosis of the liver. He was treated by elaterium and other appeals to intestinal secretion. On April 1, 1872, the abdomen was tapped, and twelve ounces of clear serum were removed. Inappetence, dyspepsia, progressive dyspnœa and weakness were marked symptoms. The patient died April 6, 1872,

having vomited frequently and retained little food for several weeks.

Autopsy.—On removal of the sternum, the pericardium was found to extend into the left mammary and upper hypochondriac regions. The lower lobe of the left lung was pushed backwards and upwards, and adhered to the pericardial sac. The parietal and visceral pericardial surfaces were intimately adherent through the presence of old, firmly-organized, fibrous tissue. The heart was somewhat hypertrophied and dilated, and the muscular substance was firm. The valves of both ventricles were apparently normal. In the right ventricle, towards the posterior wall, at the angle formed by the interventricular septum, the muscular substance was converted into a dense, white, fibrous tissue.

In immediate connection with the left ventricle, was a sac, nearly as large as the heart itself, and so intimately connected from its apex to its base that no dividing line could be made out. Its walls, which were about three lines in thickness, were not muscular, and the inner surface had several thin, laminated, variously decolorized coagula, beneath which were occasional, more or less hemispherical, somewhat irregular, elevated masses, apparently degenerated, coagulated fibrine. The cavity of the sac was filled with freshly clotted blood, and communicated freely with the left ventricle by means of two circular openings, with sharp edges, large enough to admit the forefinger, and situated on either side of the hypertrophied and somewhat fibrous papillary muscle of the mitral valve, about half way from the apex to the base.

The wall of the left ventricle surrounding these openings was thin, white and firm, the appearance suggesting that of the central tendon of the diaphragm.

One of the openings is about five-eighths of an inch in diameter, now that the specimen has been preserved in spirit, and the other is half an inch, and the distance between the two is three-fourths of an inch.

At a subsequent meeting of the Society, Dr. Jackson referred to Mr. Thurnam's large collection of cases of aneurism of the heart, and in some of which there were two, three, and even four sacs. The following extract from Mr. Thurnam's article bears upon the above case: In two, "it is not improbable that two sacs, which were originally distinct, had coalesced so as to form a single aneurism; and, in another case, three sacs seem to have united in this way." In the case above reported, Dr. Jackson remarked that, although there were two openings into the sac, there was no appearance within to show there had been a coalescence of two cavities.

Fibroid Tumor of the Uterus, of immense Size.—Dr. Wm. G. Wheeler reported the case. He said it had been under his observation for the last ten years, and the death was caused by a sudden attack of hæmorrhage from the cavity of the uterus. The specimen is interesting from its size, and it is instructive, also, from the fact that in its development there was a total absence of some of the most important diagnostic symptoms of fibroid growths in the uterine walls. Thus,

There was no disturbance of the menstrual functions.

There was no change in the length of the cavity of the uterus; therefore, the sound, so valuable as a means of diagnosis in uterine disease, gave no assistance in this case. The autopsy explains this point.

Again, there were no frequent attacks of menorrhagia, because the mucous membrane was not invaded until the fatal attack.

The history of the case was as follows:—

About ten years since, this patient presented herself. She had been suffering, for two years or more, from a severe trouble of the rectum, which she supposed to be piles, as she had been treated for such a malady by the family physician. Her general appearance, then, was healthy, and her color was good. Her height was medium, and her figure slight. Her usual weight, when in health, was about one hundred and three pounds. At this date, she was about 42 years of age, and was the mother of three healthy children. The last and youngest was then but six years old.

On examination, the mucous lining of the rectum was found prolapsed considerably, the veins varicose and granulations bleeding upon the slightest touch. The whole region was sensitive and painful, causing her great difficulty in defecation, and she could only obtain an action by large fluid injections. By a digital exploration, I found an obstruction or pressure of a mass upon the recto-vaginal septum, which, at first, suggested the thought that it might be only retroflexion of the uterus. But, upon a more thorough and vaginal examination, this mass was found to be a tumor, pressing backward upon the rectum, and nearly filling the entire cavity of the lower pelvis. This solid growth seemed to have displaced the uterus, and was connected with that organ. It was quite firm and smooth to the feel, and, at times, somewhat sensitive upon pressure.

At this stage of the investigation, the question of diagnosis was of the utmost importance. Was it malignant, or non-malignant? Was it a tumor to be attacked, or one to be let alone? The absence of pain or apparent cachexia seemed in favor of its being non-malignant; also, its gradual growth and its central position in the abdomen. Then the mobility, firmness and somewhat lobulated outline, together with the slight effect upon her general health, pointed strongly to its true character, namely, a fibroid tumor of the womb, originating near the peritoneal surface.

The growth seems to have been, first, backward and downward, pressing upon the rectum and the bladder, and filling the lower pelvis; thence upward, slowly appearing above, in the cavity over the symphysis pubis, and thence arriving very gradually at the umbilicus. When at about this point, it began to antevert over the pubic bone, thus lifting its lower part up and out of the small pelvis, putting the vagina and its attachments upon the stretch, and pressing upon the bladder so as to cause much distress. But this movement of the tumor gave great relief to the painful symptoms connected with the direct pressure upon the rectum.

During most of the years that this tumor was gradually reaching this enormous size (fifty-two pounds), the general health suffered but little, comparatively, for no other organs of the body seemed to be diseased. The appetite and digestion remained good, and she was able to do her own house work, even up to the last. She suffered but little pain, except from pressure upon the abdominal organs, weight and overdistention. She expressed difficulty in lying down, and, when on her feet, used a sling from her shoulders to support the tumor.

Another fact worthy of mention in this case is, and it will be plain

from the autopsy, that the whole menstrual life was passed without any disturbance from this extensive outgrowth. The menses appeared early in life, and were painless and regular as to time (even to a day), and normal as to quantity and in character. She passed her climateric without any unusual symptoms, the catamenia having ceased about one year since. The tumor continued its growth, gradually, up to the time of death. During the last three or four years of her life, she was confined to her house, the weight having become too much for her strength; there was a gradual wasting of the various tissues of the body, but the mind remained hopeful and cheerful to the last. The fatal attack of hæmorrhage was from the cavity of the uterus, and it came on without any apparent cause, while the patient was quiet. It was profuse in quantity, exhausting in its effects, and caused death on the third day.

Autopsy.—The surface of the body was pallid, and the emaciation was extreme. Large and tortuous veins were found traversing the skin covering the tumor. There was some infiltration of the tissues forming the lower part of the abdomen. There was no œdema of the lower extremities, and no ascites. The muscles of the abdomen had been converted, by pressure and extension, into mere fibrous bands.

The tumor, which was closely connected with the uterus by old peritoneal adhesions, filled a good-sized wash-tub, and weighed fifty-two pounds. The attenuated body weighed only sixty-two pounds without the tumor. The surface of the growth was whitish, or rather, in spots, of a pale flesh color; it was divided into many lobes, some of which were more dense than others, but all were quite firm, without any points of ossification. The interior consisted of a coarse, white fibroid structure. The tumor arose, as had been suspected, from the fundus of the uterus, anteriorly, and by a pedicle about two inches in diameter; this last being traceable through the parietes of the organ and down to the mucous membrane, which showed by its discoloration at this part that it had been the source of the fatal hæmorrhage. The uterus itself was five inches in length, and no other fibroid tumors were found. The other viscera were healthy.

At the suggestion of Dr. Bowditch, a cast of the immense mass was taken, and it is now in the Museum of the Medical College.

Jan. 26, 1874.—*Result of Renal Disease.*—Dr. Jackson showed the specimen, which he had received from Dr. F. H. Thompson, of Lancaster.

It is a cyst that measures, now that it has been dried, about six by three and a half inches, and is entirely cretaceous. The inner surface consists of flat and rather thick plates, a few lines in diameter, and in close juxtaposition. Externally, there was in the recent state, and is now, no trace of the botryoidal form that is so characteristic of this disease of the kidneys. The cavity of the sac was filled with a homogeneous substance that perfectly resembled plaster of Paris when mixed with water and about ready to set; and this was shown in a dried state.

The diseased mass was situated in the right iliac fossa, and the ureter was traced from it to the bladder; there being nothing above it and in the place of the right kidney. The left kidney was in its usual situation.

Dr. Edward S. Wood, Professor of chemistry, found the contents to

consist of the carbonate, phosphate and oxalate of lime in about equal proportions, with a small amount of the carbonate of magnesium and ammonio-magnesium phosphate. Of animal matter, he found not more than one tenth part, and this consisted of albumen and organic *débris*.

The patient, a widow, died at the age of 72 years, of a malignant disease of the womb; and had never, so far as was known, had any affection of the kidneys.

Dr. Ellis said that, taking into consideration the statement of the physician that this specimen was a kidney, and the result of the chemical examination, showing the presence of urinary salts, it might be that, after all, this was only an exaggerated form of what is not unfrequently seen, and what in the older books is described as tubercular disease of the kidney. In these cases, the ureter becomes impervious and the calices get distended with inspissated pus and urinary salts. We might suppose this to be possible where the distention is carried on even to the extent to which it must have been in this case.

Dr. Jackson had seen kidneys reduced to a mere cyst, but he had never seen any such material as the contents of this specimen, nor had he ever seen a case where there was not something in the form of the cyst to remind one of a kidney.

Dr. White said that oxalate of lime was never found except in connection with the renal apparatus, with the exception of the contents of the stomach. The other urinary salts might, perhaps, occur in pathological growths not connected with the kidneys.

Intermitting Lameness.—A very curious thing has been described by Dr. Sabourin, namely, that lameness may ensue from obliteration of arteries. Horse lameness is often so obscure that any light proves desirable. It is not, however, confined to the horse, but extends also to man. The cause, as observed, is owing to obliteration of the aorta and iliac arteries. Commonly, in previous good health, the subject begins to limp *(boiter)*, in one or two limbs to tremble, and finally to fall. Rest is commonly productive of relief. MM. Bouley and Goubaux long ago pointed out the nature of the affection in horses, while M. Charcot first pointed out its occurrence, comparatively rare, in man. Arteritis has been supposed to be the occasion in horses, owing to the violent efforts they have to make; and embolism in men. In any case, the occurrence affords a favorable illustration of the advantages of the study of comparative pathology.—*The Doctor.*

Porta and Valerani on The Radical Cure of Varix by the Injection of Hydrate of Chloral.—Professor Luigi Porta, in an article communicated to the Lombardian Institute, gives an account of the clinical observations which he has made on the coagulant property of hydrate of chloral, and especially of its use in the treatment of varix. He reports fifteen cases of varix of the leg treated successfully by the subcutaneous injection of hydrate of chloral, beginning with a gramme, and then reducing the dose to a half or a third of a gramme. The coagula are formed at once, and the patient is confined for a few days to bed, to obviate the risk of phlebitis. The coagula are ultimately absorbed, and the veins become hypertrophied, or remain pervious, though not varicose.

Dr. Valerani, writing on this subject, says that any method for the cure of varix should be free from danger, either immediate or remote, easy of application, and fairly constant in result. All these conditions are present in the treatment proposed by Porta.—*The London Medical Record.*

Bibliographical Notices.

On Diseases of the Chest; being Contributions to their Clinical History, Pathology and Treatment. By A. T. H. WATERS, M.D., &c. Second Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1874. Pp. 431.

THE first edition of Dr. Waters's book appeared in 1868, and was well received. The present edition contains new chapters on hæmoptysis, hay fever, aortic regurgitation, mitral constriction, thoracic aneurism, and the use of chloral in certain diseases of the chest; other chapters have received additions of cases and remarks on treatment. Some characteristic sphygmographic tracings have also been added.

The new lectures, as far as clinical history and pathology are concerned, contain little or nothing new or especially interesting to the practitioner, but are suited rather to the wants of the student. On the subject of treatment, however, which is, in the nature of things, so largely empirical, the experience of so careful an observer as Dr. Waters appears to be, is valuable to us. In the treatment of copious hæmoptysis, Dr. Waters insists upon rest as being very necessary, as he believes that pneumonia and phthisis are not infrequently the direct results of the irritation of the blood in the lung, agreeing in this opinion with Niemeyer. In severe cases, he always applies ice to the chest; not long enough, however, to produce a chill. Gallic acid he esteems more highly than any other medicinal agents, and he sometimes uses dry cups. His experience in the use of ergot is not favorable.

In regard to hay fever, the author speaks, as many medical writers have done, from personal experience. He considers this disease to be due to "emanations from various flowering plants," though he does not accept the view (recently put forth by Blackley, especially with reference to his own case) that the pollen is the sole exciting cause in all cases. He believes that "certain atmospheric conditions—conditions, indeed, very opposite to each other—warmth and moisture on the one hand, and hot, dry, bright weather on the other," may either produce the disease or keep it up. A noticeable symptom in two of Dr. Waters's attacks was a *periodical insomnia*, which recurred and subsided at certain hours each day. He seems to have suffered more in a *warm, moist atmosphere*. In the summer of 1868, which was hot and dry, he did not suffer at all, though he was in the country during a part of the time. He had no attack in 1869, which was also hot and dry. The author says, however, that there can be no doubt that dry, hot, bright weather produces the affection in some people. He found relief from carbonate of ammonia, and thinks tonics very essential in the treatment.

In the treatment of thoracic aneurism, the author thinks that the plan of prolonged rest in the recumbent posture, and somewhat scanty diet, is deserving of more extended trial. The rest must be perfect and prolonged. The patient should be allowed a small quantity of meat daily, and very little fluid. He says that he has no personal experience with the use of galvanopuncture in this disease, but should be disposed to try it in any suitable case. He thinks the iodide of potassium may be of service, though he cannot speak confidently.

Chloral is especially recommended for procuring sleep in those cases of bronchitis complicated with emphysema, in which, on account of the profuse secretion and diminished expectorating power, life is threatened. The author implies that with this agent there is not the same tendency to check expectoration, and thereby increase the liability to death, as there is with opium. He has found chloral useful also in checking irritating cough, in asthma, and especially for procuring sleep in organic disease of the heart. He thinks that there is a risk in giving chloral in cases of chronic alcoholism, especially if the patient is in the habit of smoking much as well as drinking freely. His precautions against the rejection of this remedy by the stomach

are worth following. He prescribes it with tincture of orange peel, or syrup of tolu, and an aromatic water; to be taken, well diluted, *when in bed*, as even walking across the room will often lead to its being vomited.

The remarks in regard to the use of the sphygmograph in valvular affections of the heart are very just. The author says we derive no aid from it in determining the site of the disease, but he is disposed to think that it may enable us, in some cases, to form a more correct opinion as to the amount of valvular insufficiency or constriction, and thus aid us in our prognosis.

Medical and Pharmaceutical Notes. By EDWARD R. SQUIBB, M.D. Philadelphia: Sherman & Co. 1874.

THE products of Dr. Squibb's pen, as well as those of his laboratory, are pretty sure to have a genuine value. This pamphlet is no exception, and furnishes a good deal of useful information to physicians and apothecaries. With reference to the former, we will offer a few useful selections.

Dr. Squibb finds that one seventh of one per cent. of carbolic acid is sufficient perfectly to protect a solution of any alkaloid from the development of confervoid growths so common in solutions kept for hypodermic use. The solutions should be made with distilled water and be carefully filtered. If made with common water, double the quantity of carbolic acid is required. He does not state definitely whether this proportion of carbolic acid is entirely unirritating, but says that one thirteenth of one per cent. is "entirely unobjectionable for the delicate purposes of eye-surgery."

Ergot in the market is of very variable quality, and consequently its preparations must vary, even if made by officinal processes. "There can probably be no better preparation of ergot than the officinal fluid extract of the U. S. Pharmacopœia of 1860." Dr. Squibb prepares a solid extract by evaporating this to dryness at a very gentle heat, and an aqueous solution of this may be used for hypodermic injection. Its permanence is not yet ascertained, and it should consequently be made frequently. It has also produced abscesses.

The last article of special interest to physicians is that on pocket medicine cases, of which Dr. Squibb describes a modification, containing, besides the vials, tubes for measuring and dropping liquid contents. A list of concentrated preparations is given, most of them in the liquid form, from which the physician would have no difficulty in selecting all and more than all that might be necessary in a hurry or in a country practice.

BOOKS AND PAMPHLETS RECEIVED.

Herpes Gestationis; a Rare Affection of the Skin peculiar to Pregnancy. By L. Duncan Bulkley, M.D. New York: William Wood & Co. 1872. Pp. 32.

Post-mortem Changes *versus* Ante-mortem Lesions. By Stanford E. Chailli, A.M., M.D.

The Medical Colleges, the Medical Profession and the Public. By Stanford E. Chailli, A.M., M.D.

THE SOLAR RAY AS AN ESCHAROTIC.—Dr. R. S. Goodwin states that, for several years, he has used the concentrated rays of the sun for the destruction of nævi and other troublesome superficial growths of the skin, and recommends this agent as an efficient and convenient caustic. By its aid, he has destroyed chancres, and also condylomatous growths of a syphilitic origin. He employs a double convex lens, about two and a half inches in diameter, and having a focal distance of nearly ten inches. No other caustic, he thinks, leaves behind so little scar as this. Among its other advantages, it never gives rise to hæmorrhage; the pain inflicted is not excessive, and is not prolonged after the operation, while it is rarely followed by suppuration or inflammatory action.—*The Medical and Surgical Reporter.*

Boston Medical and Surgical Journal.

Boston: Thursday, April 23, 1874.

The good work which our State Board of Health has been engaged in for the last five years has been so energetically carried on that, in spite of any doubts that might have been entertained at the outset, as to the advantages to be derived from such a Board, it has gained steadily in public favor, and its reports are looked forward to yearly with increasing interest. The fifth annual report proves to be not less interesting than its predecessors. Indeed, the past year has, unfortunately for the Commonwealth, been fruitful with opportunities for the Board to distinguish itself, and these, as the report will show, have not been thrown away. We have been visited with numerous epidemics, and threatened with others; while the citizens of Boston have begun to experience some of the drawbacks which are, doubtless, the almost inevitable concomitants of a metropolis rapidly growing in numbers and prosperity. It is under such circumstances as these that the usefulness of a body of experienced men, whose duty it is to protect our interests, health, and, perhaps, even our lives, is practically demonstrated. Those who read the record of the past year will find that the members of the Board have not only adequately met the responsibilities of the hour, but have also found time to conduct investigations into numerous subjects of interest, and into some of great importance.

In the general report, the epidemic of smallpox, which, at the time the last report was issued, was at its height, is noticed, and attention is called to the protective power of vaccine, as shown at that time; and the need of re-vaccination is spoken of as being necessary, at least, once after mature life. What local Boards of Health did in this epidemic, supported and advised as they frequently were by the State Board, to whom, in many cases, they owed their origin, has become a matter of history. Fortunately, Asiatic cholera did not reach us, but the warning and instruction given last year will, we hope, not be thrown away, should, with returning summer heat, the disease appear in this part of the country, a danger which the report states to be quite in accordance with the previous history of this epidemic.

The question of sewerage is again emphatically brought to the attention of the Legislature, and the need of a comprehensive plan for the sewerage of the whole metropolitan district is urgently pressed. It is almost needless to say that this is a subject of vast importance to the future welfare of the city, and yet one that has, thus far, in spite of warning, persistently been neglected. In reference to the Miller's

River nuisance, the Board says, in regard to slaughtering houses, "were this business removed to a suitable place, with ample space, direct drainage to strong, tidal currents, and buildings planned with special reference to sanitary safety, the slaughtering of swine for exportation might be extended without limit, and without prejudice to public health, comfort or convenience."

It is pleasant to turn from thoughts suggested by such odorous subjects as these to the description of the neat and orderly buildings of the Brighton abattoir, a monument to the industry and efficiency of the Board in reforming what was, in time past, one of our great nuisances.

Our space does not permit of more than an allusion to some of the numerous interesting documents which accompany this report. The Chairman of the Board, Dr. Bowditch, in an article entitled "Preventive Medicine," gives much valuable instruction as to the mode of life necessary for the preservation of health, with particular reference to such precautions as are rendered necessary by our rigorous climate. We should be glad to see such advice as this paper contains placed in the hands of many a good citizen of this State, now sadly in need of the same. Dr. Derby points out, in his paper on "Hospitals," what the hospital of the future ought to be. There is little doubt that a new era in hospital construction is now beginning, and as "it is probable that, within the next ten years, many hospitals will be built in Massachusetts," the remarks of Dr. Derby are timely, and we hope will not be unheeded. Among the other papers given in the report, we notice Health of Farmers, by Dr. Adams, of Pittsfield, a valuable report on the Epidemic of Cerebro-Spinal Meningitis, by Dr. Upham, an exceedingly interesting paper on School Hygiene, by Dr. Winsor, and investigations into the use of zinced iron for the conveyance of drinking water, by Dr. Boardman. There are other communications of equal interest, and we mention the above simply to show the wide range of subjects which have come under the observation of the Board. It is a noticeable fact that the interests of all classes in the community are touched upon in this report, and we hope the valuable, and we may add the very interesting and readable, instruction which it conveys may find its way into every town and village of the State.

We have seen the prospectus and advanced sheets of a proposed register, to comprise a great variety of data concerning the members of the medical profession in this State, together with a record of societies, institutions, medical schools, charitable associations and other matters—the whole presenting a fund of information of exceeding value. The plan of the Boston Register, issued two years ago, will be

enlarged and improved upon in this directory of the whole State. The editor and compiler is a gentleman well known in the profession, and his aim is to give to his medical associates a work which will prove to them a hand-book, convenient for reference, and accurate in detail. From our personal knowledge of the plan, we feel sure the work merits the hearty coöperation of physicians in its preparation, and their no less hearty acceptance when it shall be completed.

The advantages of such a book need hardly be alluded to. Aside from the value it will carry in itself to every one who has it at hand as a reference book, it will serve a most excellent purpose in presenting the medical profession of Massachusetts in its entirety, and in showing not merely an array of names like a catalogue, but giving, also, what the profession *is*, what it *has done*, and what is its machinery for accomplishing more in the future. The scheme, unique in its scope and details, has our good wishes for its success.

Simple Apparatus for Fracture of the Thigh in New-born or very Young Infants.—At its February meeting, 1874, Dr. Gueniot presented to the Société de Chirurgie at Paris, a very simple contrivance to prevent the flexing of the thigh upon the pelvis, which, he said, was all that it is necessary to do to obtain the least possible displacement. The apparatus consisted of a layer of gutta percha, moulded to the abdomen and anterior part of the thigh, and to be retained there by a few turns of a bandage. The apparatus never need be soiled by the dejections, gives no uncomfortable pressure, and is easily prepared extemporaneously. It need not extend upon the thigh beyond the seat of the fracture. It is effective, and the simplest yet offered.—*Journal de Médecine et de Chirurgie Pratiques.*

Conviction of a Quack for Manslaughter.—A quack, calling himself "Professor" Morris, has been sentenced at the Hertford Assizes to imprisonment for three months for manslaughter, having been convicted of causing the death of a young man by the administration of five pills containing arsenic, in order to relieve a "cold." The relief obtained was decided and radical.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, April 8 and 11, 1874.)

Operations were performed in the following cases:—Hæmorrhoids, Hare-lip, Tumor of Eyelid, Sinus of Arm, Nævus, Hare-lip, Cancer of Lip, Hare-lip, Cancer of Lip, Necrosis, Felon, Fistulæ, Tumor of Back, Felon, Disease of Ankle-joint, Necrosis, Felon. During the week, Hæmorrhoids, Hare-lip and Necrosis.

Hæmorrhoids—in a man. Ligatured by Dr. Clark.

Hare-lip—with cleft palate, in a child two weeks old. Operated upon by concave incisions and united by silk sutures.

Tumor of Eyelid—a small vascular tumor on the lower eyelid of a man. Destroyed by the galvano-cautery.

Sinus of Arm—of three months' duration, appearing without any known cause, in a woman twenty-one years old. It was laid open by Dr. Cabot; no denuded bone detected.

Nævus.—Some small vascular points near the border of the lower eyelid, remaining after the excision of a nævus by the galvanic cautery, were destroyed by the same instrument.

Hare-lip.—The remaining fissure, in the case of double hare-lip reported in the JOURNAL of March 19th, was pared and its external border joined to the portion of the lip which covered the inter-maxillary projection, in a manner similar to that employed in the first operation, the union of which had become firm and symmetrical.

Cancer of Lip—in a man sixty-three years old. The growth was superficial, and located at the centre of the lip. Dr. Clark excised it by a V incision.

Hare-lip—double, in an infant four months old. Although complicated with cleft palate, the fissures did not extend into the nostrils. The borders of one fissure were pared and the raw surfaces united with silk sutures, the second fissure being left for a future operation.

Cancer of Lip—in a man fifty-five years old; recurrent in eight weeks. Dr. Clark removed the disease by a V incision.

Necrosis—of metatarsal bone and first phalanx of great toe, following an amputation for frost-bite. The fistulous openings connected with the dead bone were enlarged and a loose fragment removed; the distal end of the metatarsal bone, which was also dead, was removed by a chain saw.

Felon—of thumb. Free incision by Dr. Clark.

Fistulæ—in a boy fifteen years old, following ischio-rectal abscesses on each side of the anus, that came on after a horseback ride. They were explored, laid open, and found not to communicate with the rectum.

Tumor of Back—a firm growth of the size of a hen's egg, adherent to the skin, which was of a deep purplish red color, located three inches from the spinous processes, midway between the crest of the ilium and the last rib. It first appeared about one year ago, and had enlarged gradually until October; since then, it has increased rapidly and been very painful. On its surface, was a cicatrix resulting from an opening made on the supposition that it was an abscess. Dr. Cabot encircled the tumor by an incision, and dissected it from the fascia overlying the latissimus dorsi.

Disease of Ankle-joint—of three months' duration, in a girl of ten years, following a sprain. Fistulous openings on the inner and outer aspects of the joints communicated with the interior. Dr. Clark laid open the sinuses, and ascertained that the disease involved the cartilaginous surfaces of the tibia and astragalus.

Necrosis—of terminal phalanx of finger, following a felon. Finger laid open and dead bone removed by Dr. Clark.

Felon—of thumb. Dr. Clark made a free incision.

Hæmorrhoids—in a woman. Transfixed and tied by Dr. Gay.

Hare-lip—in a boy eight years old. The fissure did not involve the nostril. The borders of the fissure were pared and brought together by fine silk sutures.

Necrosis of Femur—in a man twenty years old. When a child, had hip disease, which had resulted in an anchylosis of the joint, with slight adduction and flexion of the limb. There were four fistulæ over the great trochanter, one of which communicated with dead bone; the others were superficial. The sinuses were laid open, and a large piece of dead bone removed.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE following surgical operations were performed Friday, April 17th:—

Dr. Williams performed Iridectomy in the case of a man whose eyes had been injured by the explosion of powder. The left eye was so much injured that no operation could be done. In the right eye, there was so much opacity of the cornea that sight was very defective. The iris was, however, healthy, and in its lower part—the place of election for the performance of iridectomy—the cornea was clear. Although the prognosis was doubtful,

the operation was justifiable, owing to the present wretched condition of the patient as regards sight. A larger portion of the iris was excised in this case than in the former, because of the presence of so large an amount of corneal opacity. The operator remarked that it was sometimes well to remove, by gentle pressure, the blood which was effused into the anterior chamber, although if allowed to remain it would usually be absorbed.

Dr. Ingalls Re-Amputated the Thigh of an adult male in its upper third. In 1872, the leg was crushed, and it was amputated just above the knee. At first, the result seemed good, but necrosis soon followed, and the femur has continued to be diseased ever since. Now, there are several sinuses leading to diseased bone. An exploratory incision showed the femur to be so extensively diseased that it was decided to amputate it in its upper third.

Dr. Homans operated on a Fistula in Ano by means of the elastic ligature. Some time ago, the patient fell astride a pile of boards. An abscess formed in the perineum, from which a sinus was found to extend into the rectum. A rubber ligature was passed through the sinus and out at the anus and tightly tied, with the hope that the fistula would heal as the ligature cuts its way out.

Dr. Ingalls removed a large portion of the Lower Jaw for malignant disease. Some five years ago, the patient, an old man, noticed a wart-like excrescence on the right cheek, and, about six months since, some sort of an operation was performed by a party unknown. The result was a considerable loss of tissue from the lower lip and about the angle of the mouth on the right side, and an irregular cicatrix extending nearly half way to the ear. The submaxillary glands were not involved, but the jaw was so extensively diseased as to require removal, excepting the ascending ramus of the left side. An incision was made vertically through the lip, and extended parallel with the lower edge of the jaw to the right angle. The tissues were then dissected from the bone, which was sawed through near the left ramus, and its major portion removed.

An Abscess of the Neck was evacuated by Dr. Homans.

F. W. Draper.

Correspondence.

Florida as a Health Resort.

People whose health needs a mild climate in winter are badly off in New England. If they stay at home, it is cold; if they go away, warm weather is far to seek. Eastern North America is not only much colder than the same latitude on the Pacific coast or in Europe, but also more variable. The chief mountain chain runs lengthwise, instead of across the continent, and there is nothing to stop the north winds sweeping from the great surfaces of frozen ground which bound the sub-polar regions. Therefore we see the orange tree periodically killed by black frost as far south as Florida; and the crops of Louisiana as often injured by a sudden fall of temperature as the vineyards near Bordeaux, a city that lies on a line with Quebec. We have no region corresponding at all to the Italian *riviera* which looks to the south, and is protected by abrupt mountains of naked limestone. In default of this, people have, of late, taken to going on the St. John river, in Florida. Travellers may be numbered there by thousands, of whom a large part come from New England.

It is of some importance for invalids to know how they can get there, and what they may expect at their journey's end. One may go by sea or by land. There is a line of good steamers which run to Savannah from Boston in three or four days; and, from Savannah, there are other steamers which make the trip to Jacksonville, near the mouth of the St. John, in about twenty-four hours; of these, some pass down the Savannah river and follow the open sea, while others make the inland passage, following creeks and estuaries for most of the way. Sea-sick people ought not to take this route. The Atlantic,

north of Hatteras, is never still, and physicians should bear in mind that two or three days of sea-sickness often produce, in persons of low vitality, a state of exhaustion from which it is hard to rally.

The distance by railroad is formidable, but may be broken at several places; and may, by good management and the help of Pullman cars, be accomplished fairly. The number of hours is nearly as follows: Boston to New York, seven and a half; to Washington, seven and a half; to Richmond, six; to Columbia, S. C., twenty-four (breaking this at Charlotte, if you like); to Savannah, eight; to Jacksonville, eighteen. It is about the same *viâ* Wilmington, N. C., and Charleston. Invalids generally get impatient, and persuade their friends to hurry too much. They make one jump from Boston to Washington, a second to Savannah, and a third to Jacksonville. Consequently, they arrive half-starved, and with neuralgia, backache and a feeble, jerking pulse. The golden rule is to make haste slowly, and to carry plenty of "wraps." To be sure, the hotels do not invite much lingering; all those at Washington are poor; the Ballard, at Richmond, is dirty; the Columbia hotel is tolerable. At Savannah, there is a good house, the Screven; and Jacksonville has two good hotels, the St. James and the National. Indeed, once in Florida, and the traveller, be he well or ill, is fairly provided for. There are plenty of good steamers, and comfortable hotels are to be found at the chief places. The country has been overrun by northerners, and the unbearable dirt and laziness of the natives have been thrust aside. Before leaving Jacksonville, the traveller should get a guide-book for the river and adjacent country. There is a nice little work by Brinton, but it is antiquated; there is Appleton's Guide, a catchpenny affair, written in the vapid style of the average newspaper.

Northern Florida, whose base of supplies is Jacksonville, and whose high road is the St. John river, is of modern formation and everywhere very low. The higher ground, rarely more than twenty feet above the river level, is composed of fine silicious sand, supposed by some geologists to belong to the glacial drift. It supports a strong growth of yellow pine, with the great magnolia, the live oak and an undergrowth of dwarf fan palm. The low ground—and a large part of the country is half drowned—is alluvial, covered with a rank thicket of shrubs, such as the swamp honeysuckle and the cornel, among which rise deciduous cypresses of great size. The innumerable tributary streams are more or less choked by floating aquatic weeds and by great banks of coarse water-lilies, which bear a yellow flower, and are called "bonnets."

That most of the country is highly malarious during warm weather, may be read in the bloodless faces and purple lips of those whites whose poverty condemns them to live where they were born. The proverbial *faccia di Albenga* of Italy is quite a healthy countenance in comparison. This danger does not exist in winter, and some people stoutly maintain that the river is healthy until the first of June. Doubtless, however, the words of the Charleston physician are wise: "Do you see that long moss hanging to the trees? That says, 'as soon as the first of May comes, you run!'" Malarial poison is an affair of place and of the constitution exposed to it. Shifting a house a few yards will sometimes make it safe. One man, who is quite reduced by tubercular disease, may experience no trouble; while another, who is much stronger, and only suffers from nervous prostration, may get poisoned within a week. In the face of such uncertainty, and of the profound ignorance of physicians concerning the nature and action of malaria, it is well for invalids to keep on the safe side by retiring as early as the middle of April. They should observe the same rules in returning as in going, and make slow haste; nor forget the precept of one of Boston's wisest physicians, to "come back with the strawberries."

Florida, albeit so equal in surface, offers some variety in air and temperature. The mean of winter temperature is, at San Augustine 58°, at Pensacola 55°, and at the mouth of the Miami river 66°. This last spot is specially praised by Dr. Brinton, but it still remains almost inaccessible. San Augustine is more windy and more bracing than the other inhabitable points.

The river St. John is more relaxing, and its air, although not what we call "damp," is always charged with moisture. Here is the paradise of that great northern legion, sometimes called "shawl and sofa patients" by despairing doctors. They are those people of dry skin and weak heart-action, whose nerves are pulled taut by the first dry cold, and who thereafter are the prey of neuralgia, dyspepsia, and all the other evils that beset a system struggling against odds. Florida is their happy land, where their aches fall off, like Christian's bundle of sins before the cross. Not so for those patients whose trouble in the lungs demands a stimulating climate. They will dwindle there and fade. And so, too, those who are in the late stages of tubercular disease; it is no place for them. But there are many whose air passages are disordered, or who have more serious lung trouble, even, to whom the mild, moist air is grateful.

Then there are warm sulphur waters, at Green Cove Spring, for example, where persons gouty or rheumatic may bathe and promise themselves benefit—which, after all, is much in this life.

On the whole, Florida is valuable, to be used like all alteratives—with discretion. T.

Villous Cancer.

Boston, April 16, 1874.

Messrs. Editors,—With your permission, I would call attention to Dr. Fifield's communication concerning villous cancer in the last number of the Journal. This seems all the more desirable, as perhaps explanatory of the difference of opinion maintained at the London Societies, and as suggestive of the non-cancerous nature of the tumor of the bladder reported by Dr. Fifield and recorded as one of "villous disease." It may be remembered that this tumor was made up of four masses of villi, the smallest ones "attached by a single narrow peduncle to the bladder, and the mucous membrane, even in the immediate vicinity, did not appear to be changed. The growths showed no disposition to increase at the base. The two largest were attached by broader bases to prominent rugæ."

In Follin's description, as quoted by Dr. Fifield, the villosities "rest on a firm base, having the consistence of encephaloid, which renders, upon pressure, a creamy juice." So with the description in Frerichs: "The wall of the gall-bladder, upon which they are developed, is thickened, transformed into fibrous areolar tissue, which is soaked with cancerous juice." In Heschl's case, the mucous membrane was thickened, "and presented areolæ," which contained "cylindrical epithelium and fatty granulations."

It seems evident, from these quotations, that different conditions existed, the presence of villi alone being common to all. In the first case, there is no evidence of cancerous disease within the mucous membrane nor within the villi; in the others, the reverse is apparent. These latter might well be villous cancers; the former a villous tumor simply, a papilloma, or, more exactly, a papillary fibroma, and analogous, structurally (so far as the villi are concerned), to the ovarian tumors removed by Dr. John Homans.*

It is well known that a villous appearance may occur in connection with tumors of the most varied character. The villous cancer, however, is cancer with villi, or villi with cancer, or cancer with cancerous villi, all three conditions being possible. In the Cellular Pathology (p. 513), and there is no alteration in the latest edition, Virchow, in speaking of papillary tumors, states, "within the papillæ, a cancerous mass may develope itself," and a cancer of the bladder may exist for some time when "a formation of villi takes place upon the surface."

If the rectal tumor is a papillary fibroma, it would be benignant; as a villous cancer, it should present the structural as well as the clinical features of cancer. From such a point of view, Mr. Gowlland's varied results seem to admit a satisfactory explanation. Yours truly, R. H. Fitz.

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* Journal, April 9, 1874.

Medical Miscellany.

THE FOTHERGILLIAN GOLD MEDAL of the Medical Society of London has been awarded to Dr. John Kent Spender, of Bath, for his essay on Therapeutic Means for the Relief of Pain.

MR. T. SPENCER WELLS has recently reported a successful case of ovariotomy, performed upon a girl, eight years old, sent to him from San Francisco.

THE JOSEPH MATHER SMITH PRIZE.—"Hygiene, in either of its Special Departments," is announced as the subject of the next annual prize of $100, to be awarded in March, 1875.

THE EXPORTATION OF OPIUM from Great Britain has increased from 35,848 lbs. in 1840 to 150,414 lbs. in 1870; and the value of the same from £35,609 in 1856 to £196,165 in 1870.

AN INTERNATIONAL SANITARY CONGRESS.—The Foreign Minister of Austro-Hungary is making preparations for an international congress on sanitary matters and quarantine, to which representatives of all nations will be invited.—*New York Medical Journal.*

AN INSTRUMENT has been invented for supporting the affected muscles of the face in cases of facial paralysis. It consists of a silver wire bent so that one end enters the buccal cavity at the angle of the mouth, the other end being fixed above and behind the ear.

WE announced last week that Dr. J. B. S. Jackson had sailed for Europe, but just before the appearance of the JOURNAL, came the startling news that he had been exposed to the fury of a hurricane on board of the unfortunate *Amérique* and to the discomforts of an escape by the boats. Dr. Jackson's numerous friends feel deeply thankful for his preservation, and will join us in the hope that the remainder of his vacation may be pleasanter than its beginning.

THE HEALTH OF ROME.—In spite of the general impression of the unhealthiness of Rome, it appears from the statistics of the city, that, last season, there were but 20 deaths in 17,000 foreign visitors, of which 7 are described as from typhus, 5 from typhoid, probably all 12 from enteric fever, and 1 from pernicious fever, the name given to a severe form of intermittent. Three of the typhoid cases were imported, while only nine of the twenty died from disease contracted on the spot. Thus the death-rate among foreigners was only a little over 1 per 1000. This, however, must not be taken as absolutely correct; for some who were very ill in Rome died in other towns.—*The Medical and Surgical Reporter.*

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.—At the annual meeting, held April 15th, the following officers were elected:—

President—G. J. Townsend.
Vice President—W. W. Wellington.
Secretary—C. E. Vaughan.
Treasurer—J. W. Willis.
Orator—Morrill Wyman. *Substitute*—E. S. Wood.
Commissioner on Trials—R. L. Hodgdon.
Censors—S. W. Driver, J. L. Hildreth, H. E. Marion, E. R. Cogswell, E. J. Forster.
Councillors—Morrill Wyman, J. B. Taylor, H. Cowles, A. C. Webber, S. H. Hurd, R. S. Warren, A. Hosmer, B. F. D. Adams, R. L. Hodgdon, W. W. Wellington, H. P. Walcott, S. G. Burnap, J. L. Sullivan, H. C. Chapin, E. J. Forster, J. T. G. Nichols, H. O. Marcy.

DECLINE OF MEDICAL STUDY IN FRANCE.—The *Union Médicale*, of February 17th, says that in France the number of medical students, as well as that of practitioners, is on the decline, the medical recruital, both in civil and military life, becoming more and more difficult. Medical studies have now become long and laborious, the physical and chemical sciences being now far more than mere auxiliaries, and forming an important part in the preparation for examinations; and the student, after his laborious and costly career, finds, on getting into practice, that he has no effective protection from the encroachments of charlatans and parasites.—*The Medical and Surgical Reporter.*

NOTES AND QUERIES.

"DOCTOR" DIO LEWIS.

WHAT is his real title? Can any one tell whether he is a doctor of laws, of medicine, or of divinity? And where did he get his title? *——*

THORACENTESIS.

THE operation of thoracentesis, usually accounted of recent origin, is treated of at length by *Bonetus*, 1684, who says, "the experience of both the ancient and modern makes it clear that several have been saved this way." Indeed, in the time of Hippocrates, it was sufficiently the routine to receive the aphorism "those cases of empyema or dropsy which are treated by incision or cautery, if the water or pus flow rapidly all at once, certainly prove fatal." ***

TERATOLOGY.

MESSRS. EDITORS,—Where can I find the subject of Embryonic Deformity treated scientifically or otherwise, especially in relation to its causes?

Respectfully, SUBSCRIBER.

We regret to say that the English language is poor in such works. The best general articles, though very brief, are to be found in the Pathological Anatomies of Rokitansky and Vogel. North gives a very superficial summary in the *London Lancet*, March 7th and 14th, 1840. A most admirable treatise, covering only a portion of the ground, yet in the completest manner, is the Essay on Diploteratology, by Dr. G. J. Fisher, published in the Transactions of the New York State Medical Society, 1865, 1866, 1867 and 1868. For those seeking further, there exist the classical works of Isidore Geoffroy St. Hilaire (Histoire des Anomalies, &c., 1832–37); Förster (Die Missbildungen des Menschen, 1865); also the publications of Meckel (1812–1826); Vrolik (1840–49) and Bischoff (Entwickelungsgeschichte. Wagner's Handwörterbuch der Physiologie, 1842).—EDS.

MORTALITY IN MASSACHUSETTS.—*Deaths in eighteen Cities and Towns for the week ending April* 11, 1874.

Boston, 152; Worcester, 17; Lowell, 23; Milford, 10; Chelsea, 5; Cambridge, 14; Salem, 12; Lawrence, 11; Lynn, 14; Gloucester, 3; Fitchburg, 6; Taunton, 7; Newburyport, 6; Somerville, 12; Fall River, 16; Haverhill, 5; Holyoke, 5; Pittsfield, 3. Total, 326.

Prevalent Diseases.—Consumption, 52; pneumonia, 41; scarlet fever, 23; croup and diphtheria, 9.

Three deaths from smallpox in Fall River.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, April 18th, 149. Males, 70; females, 79. Accident, 3; abscess, 1; apoplexy, 4; anæmia, 1; inflammation of the bowels, 1; disease of the bowels, 1; inflammation of the brain, 1; congestion of the brain, 4; disease of the brain, 7; burned, 1; cancer, 2; consumption, 29; convulsions, 1; debility, 1; diarrhœa, 1; dropsy, 2; dropsy of the brain, 1; erysipelas, 4; scarlet fever, 9; typhoid fever, 1; gangrene, 1; gastritis, 2; disease of the heart, 7; jaundice, 1; disease of the kidneys, 3; laryngitis, 1; congestion of the lungs, 1; inflammation of the lungs, 26; marasmus, 7; neuralgia, 2; old age, 4; paralysis, 4; premature birth, 3; peritonitis, 2; puerperal disease, 4; whooping cough, 6.

Under 5 years of age, 43; between 5 and 20 years, 18; between 20 and 40 years, 31; between 40 and 60 years, 24; over 60 years, 33. Born in the United States, 92; Ireland, 45; other places, 12.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

PARACENTESIS IN PLEURITIC EFFUSION IN CHILDREN.

By J. P. OLIVER, M.D., of Boston.

ZIEMSSEN considers the operation more successful in children than in adults. To lay down rules, however, when paracentesis should be performed is no easy matter. Roger, of the Hôpital des Enfants, Paris, gives the following* :—

"I. In acute cases, with very profuse effusion and persistent bad symptoms, puncture should be performed, first with the capillary trocar and then with the aspirator, as soon as empyema can be diagnosticated. If the effusion returns slowly and in less degree, the same operation may be repeated. If the return is rapid, however, an external fistula should immediately be made, and a short metal canula be introduced. Drainage is to be employed only in older children and by experienced operators. The pleural cavity should be washed out through the canula; if suitable, medicated solutions (tincture of iodine, decoction of bark, &c.) may be used. When the purulent discharge has diminished to about a tablespoonful in the twenty-four hours, and only an equally small quantity of fluid can be injected, the canula should be removed and the fistula will soon close.

"II. The treatment of chronic empyema is similar to that just mentioned.

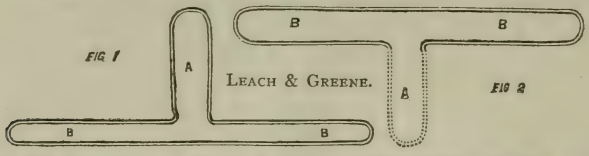
"III. If spontaneous perforation into the bronchi has occurred, but the general symptoms do not disappear, the discharge of pus is impeded, or pneumothorax comes on, the fistula should be made in the same manner by puncture, or by incision, if the pleural contents are thick.

"IV. Tubercular pleurisy is no contra-indication, especially as its diagnosis is uncertain; at all events, the patient will be relieved by the operation. Hydrothorax in a child can never be an indication for thoracentesis. In cases of fibro-serous effusion in articular rheumatism, thoracentesis is to be performed only for an *indicatio vitalis;* paracentesis of the pericardium may be oftener necessary. The termination of simple, serous, acute pleurisy in childhood is generally recovery, absorption being more rapid than in adults, and death more rare, even in pleurisy of the left side; consequently, thoracentesis is to be performed only in case of absolute necessity. In chronic pleurisy, if the effusion is abundant and remains constant for six or eight weeks, it will generally have become purulent, and thoracentesis will be indicated. The thought that a simple pleuritic effusion might be changed

* L'Union Médicale, copied from the American Journal of Obstetrics.

to a purulent one by puncture, will deter us from unnecessarily opening the pleural cavity in such cases."

The expansion of the lung, after long-standing exudation in pleurisy, is impeded, not only by false membrane enveloping it, but by atrophy of the lung itself. It is not known how long a lung may be compressed before this atrophy takes place. Dr. W. H. Dickinson, of the Hospital for Children, in Great Ormond Street, London, always taps early, and, if the fluid returns, repeats the tapping at short intervals. The exudation of pleurisy more speedily becomes purulent in children than in adults; in secondary pleurisy, it is commonly purulent from the first. This is an additional reason for not unnecessarily postponing the operation. Dr. Dickinson usually operates in front, for the reason that, when cases open spontaneously, they generally open there. If left to itself, Hillier says, it may perforate the external wall of the chest in almost any situation from the first to the eighth or ninth intercostal space. In sixteen cases, reported as having opened spontaneously, two opened in the fifth interspace a little outside the nipple, one on the right and one on the left side; one pointed and was opened on the left side in the ninth interspace in the axillary line; another in the ninth left space; and in a fifth, two openings occurred in the seventh left interspace, one in the line of the nipple and one an inch and a half further back; in the sixth, an opening was established two inches below and one inch outside the left nipple; a second, opening near it, appeared at a later period. In none of these cases did a spontaneous perforation occur higher than the fifth interspace.



Dr. Bowditch operates behind, generally between the eighth and ninth ribs, in a line from the lower angle of the scapula.

Of thirty-three cases collected by Ziemssen,* eight died and twenty-five recovered. The ages were as follows:—

Two were under twelve months, of which one recovered.
From 1 to 2 years, one case, which recovered.
" 2 to 3 " " " fatal.
" 3 to 4 " 3 "
" 4 to 5 " 4 "
" 5 to 6 " none.
" 6 to 7 " 5 cases.
" 7 to 8 " 4 "
" 8 to 9 " 1 "
" 7 to 9 " 4 "
" 11 to 12 " 1 "
" 12 to 13 " 1 "
" 13 to 14 " 1 "
At 14 " 1 "
Age not stated 4 "

When it is desirable to make a permanent opening, Dr. Dickinson uses the following contrivance, which, he claims, is superior to the

* Pleuritis und Pneumonie im Kindesalter.

old-fashioned canula or the more modern rubber tubing with small holes cut in it at intervals. A T-shaped wire, silver or nickle plated, is used (see diagram); the part A being inserted into the opening in the chest, while the wire is retained in its place by means of strips of adhesive plaster passed through the parts marked B. The wire keeps the opening from closing, and is not liable to cause necrosis of the rib, an objection the canula is open to. It does not require to be changed every few days, as is the case with the rubber tubing. When the latter is used, if the fluid is at all purulent, it adheres to the sides, soon decomposes and sets up a very offensive odor, and so necessitates the frequent washing or renewal of the tube. The part B (see Fig. 1) being bent at right angles to A, lies, when *in situ*, perfectly flat against the wall of the chest, and consequently does not cause the patient any inconvenience whatever. I am unable to state whether or not the contrivance is original with Dr. Dickinson.

JOINED TWINS AND OTHER DEVIATIONS FROM NATURE.

By James O. Whitney, M.D., of Pawtucket, R. I.

Apropos of the interest now occasioned by the death of the Siamese twins, I will mention that when I was a student at the Berkshire Medical College, there was in the museum of the institution a dried specimen of twins joined at their backs. If I was correctly informed, they were born still, Prof. H. H. Childs having been the obstetrician at the birth. The bond of union was short, not over one inch in length. No doubt some of the readers of the Journal can give full particulars of this case.

Some thirty-five years since, there was born in Attleboro', Mass., a child destitute of extremities, a human being consisting of a head and trunk. It lived until two and a half years of age. It had intelligence, and a comely face. I suppose, from what I was told by the parents a few years after its death, that it was not deficient in anything or in any respect other than as stated. One shoulder was rounded off, and the other supported a mere rudiment of an arm; and, as the mother described it, "the body came to a point." Therefore, not the vestige of thighs existed. The sex of the child, if told, I cannot recall, but I think it was a female. After it acquired strength in the spine, a socket was constructed, into which it was placed, and in this way it maintained the erect posture, taking an interest in surrounding events, "seeming as pleased when familiar faces entered the room as any child" of like age. The parents of the child (the mother is still living) were educated, well-to-do people; they had had children, notably intelligent and beautiful. A fine male child was born to them after this one.

Recently (March, 1874), I attended at the birth of a male child, the right foot of which is destitute of the four outer phalangeal and metatarsal bones; the foot consists of little more than a finger, the heel being more pointed than normal. The right hand wants a thumb, the index and large finger coalesce and are shorter than the third finger, which is singularly lengthened. On the left hand, the thumb is partially wanting; three fingers coalesce, and the little finger is the longest.

Progress in Medicine.

REPORT ON MENTAL DISEASES.

By T. W. Fisher, M.D.

Anatomy, Physiology and Pathology.

Since the brain has been suspected of standing in such an intimate relation to mind, anatomical and physiological research has been stimulated to the utmost. The convolutions are the *terra incognita* to be explored. The microscope has done, and is doing, much for cerebral pathology, but its limit of power is said to be nearly reached. What is now needed is a large number of accurately recorded observations, from which to generalize. It is possible the localization of the mental faculties, which is the great *desideratum* in a scientific point of view, will be slowly built up by anatomical and clinical observation, with the aid of physiological experiment, though Brown-Séquard has recently taken ground against the possibility of such localization.

The method of electrically discharging separate convolutions used by Fritsch, Hitzig, and, later, by Ferrier, can be applied only to animals, and it is a mistake in this matter to infer at once a correspondence of function between the homologous gyri of animals and man. In fact, a correct knowledge of the human convolutions has been indirectly hindered by a too close following of Gratiolet in his studies of the brains of apes. A more suitable method is that of Ecker, who, in his book on the "Convolutions of Man," recently translated by Dr. Edes, has used the fœtal brain as the basis of his research. He says, "here the structural plan of the human brain is exhibited in its simplest lines, while, later, the essential is often no longer to be so easily separated from the non-essential." Physicians would do well to take this little book as their guide in autopsies where the cerebral cortex is affected by gross lesions. The nomenclature of Ecker, with tracings or sketches of the lesion and its surroundings, would furnish common ground for comparison of cases.

As to the experiments of Ferrier, the full account of them, in the West Riding Reports for 1873, adds little to the summaries already given in our last report, as well as in that of Dr. H. P. Bowditch.* They show, in brief, that in animals the anterior convolutions are centres for various associated movements, while the posterior seem to have no motor signification, and are probably related to sensation. The individual convolutions are separate and distinct centres for movements of the eyelids, face, mouth, tongue, ear, neck, hand, foot and tail. The action is generally crossed. On the cerebellum depend the movements of the eyes and the equilibrium of the body. Hitzig thinks Ferrier's results were due to discharges of the basic ganglia from too deep stimulation, as they do not agree altogether with his own experiments.

Nothnagel injects a solution of chromic acid, by means of a fine canula, thus destroying a limited portion of tissue, deep-seated or superficial. His experiments confirm the above (*Virchow's Archiv*, April 10, 1873). Dr. Jackson's observations upon epilepsies and cho-

* Journal, July 24 and 31, 1873.

rea, due to "discharging lesions," and on paralyses, due to "destructive lesions," are valuable (*British Medical Journal*, May 10, 1873; and *Braithwaite's Retrospect*, Jan., 1874). His remarks on "loss of consciousness and mental automatism following certain epileptic seizures" (*Medical Times and Gazette*, July 19, 1873), contain a generalization important to alienists, viz., that different degrees of gravity in cerebral lesions produce "different degrees of involvement of nervous processes, in the order of their speciality, and correspondingly different depths of reduction in automaticity." For instance, speech is lost before the general power of expression; convulsions seize the specialized muscles of the thumb and forefinger first, &c. So in *petit mal*, loss of consciousness, the most special of nervous processes, is first induced. In insanity, there is a limitation in the area of consciousness oftentimes, with various degrees of reduction in automaticity. This may also be seen in the phenomena of sleep, intoxication, and the like.

We must proceed now to consider hastily a paper prepared by J. Batty Tuke, M.D., "On the Morbid Histology of the Brain and Spinal Cord as Observed in the Insane" (*Medico-Chirurgical Review*, April and July, 1873). This paper is based on the observation of eighty-six cases, in which examinations were made of selected portions, both fresh and prepared. The use of Dr. Major's "tephrylometer" greatly facilitated the research. This is merely a thin, glass tube, open at both ends, which, being plunged into the brain, removes a small cylinder, as a quill pop-gun does a section of potato. The color of the layers of grey matter can be observed through the glass, and their thickness measured by its graduated scale, and recorded. By pushing forward the contents, the layers can be successively sliced off and squeezed out under glass for the microscope. This method can be easily adopted by any physician, and gives better results, in many points, than the sole use of hardened specimens.

Dr. Tuke finds morbid conditions of the vessels in every case:—1, Perivascular spaces, which he thinks always indicate disease; 2, thickening of the hyaline membrane; 3, deposits on the tunica adventitia; 4, hypertrophy of the muscular coat; 5, microscopic aneurisms and apoplexies; these being, according to Bouchard, the usual cause of cerebral hæmorrhage, while atheroma is the cause of senile softening; 6, abnormalities in direction, and, 7, in pigmentation. In connection with the neuraglia, he finds: 1, General sclerosis; 2, disseminated sclerosis; 3, miliary sclerosis—all these forms of sclerosis affecting, primarily, the connective tissue, which undergoes inflammatory changes, indirectly affecting the nerve elements by pressure; 4, atrophy; 5, colloid degeneration. Disintegration and degeneration through malnutrition is exceedingly common in cases of long standing, in general paralysis, and senile decay. It is only noticeable when the wasting has been considerable, and is marked by deep sulci, wide spaces, and compensating fluid.

Special Forms of Mental Disease.

Since Dr. Skae's attempt at an etiological classification, given in our last report,* a classification mania has prevailed, which may itself be regarded as a form of insanity, or "dominant idea." Dr. Skae,

* Journal, vol. lxxxix, 1873, page 108.

while he lived, and his pupil, Dr. J. B. Tuke, have extended and defended the system mentioned. Dr. Bucknill offers a new system, and criticizes Dr. Skae's as excluding all mental distinctions (*Lancet*, Nov. 15, 1873). He divides *insania*, which is a neurosis, into the three familiar forms of mania, melancholia and dementia, corresponding with the cerebral states of exaltation, depression and debility. He makes twelve sub-classes out of different groupings of these primary forms. He admits mental distinctions, but omits the element of time.

Dr. Laycock thinks none of the current classifications broad enough or scientific enough to include transitional varieties (*Lancet*, Jan. 3 and 10, 1874). He does not find them practical, either, and proposes to devise a plan suitable as a basis for clinical instruction at the Edinburgh Infirmary. Dr. Berthier objects to anatomy, physiology, pathology, etiology, symptomatology or psychology, as insufficient bases for a classification in the present state of knowledge (*Annales Medico-Psychologiques*, Nov. 1873). He suggests clinical analysis as a practicable one. He begins with three classes:—1, Delirium accessory to febrile conditions; 2, delirium secondary to neuroses; 3, insanity, properly so-called. The latter he divides into eight manias, based on such general conditions as apprehension, stupidity, impulsiveness, grand delusions, &c.

It is very certain that a scientific classification is still impossible. The various methods devised have each a different value, but all have the same fault of making arbitrary distinctions when none exist in nature. Disease does not so dissect and dissever the functions of the brain. The three best established forms, mania, melancholia and dementia, either coëxist or succeed each other in nearly every case, so that they are really the names of different stages of one disease. Neither are the three grand divisions of mind, the will, the emotions and the intellect, so clearly distinct as to furnish a basis of division when affected by disease. It may, perhaps, be safely conjectured that insanity will ultimately prove to be one disease with many symptoms.

If there is a distinct form of mental disease, it would seem to be acute mania, coming on suddenly, from definite, exciting causes, and often ending in complete recovery in a few weeks. Dr. Sankey is inclined to deny the existence of this form of insanity, and asks (*British Medical Journal*, Oct. 25, 1873), "Is there such a disease as acute, primary mania?" If so, he says, it should, like pneumonia, for instance, begin, continue and end as mania. He has never observed this to be the case. He has always found premonitory symptoms of a different mental type. It may be answered that the depression, irritability, wakefulness, &c. premonitory of acute mania, are, sometimes, no more prominent or lasting than the malaise and chill preceding pneumonia; and the mania often passes off with no more proportionate mental debility or dementia than one sees of lung debility, succeeding pneumonia.

Traumatic insanity would seem to be sufficiently classifiable from a clinical point of view. Dr. Krafft-Ebing (*Annales d'Hygiène, Juillet*, 1873) gives an analysis of cases of insanity following blows and wounds of the head. The chief symptoms are:—

1. An extreme, progressive, general irritability.

2. Diminution of power to resist alcoholic excess, a symptom which every one must have noticed after heat-stroke, and which is common

to many forms of insanity. In intemperate persons the disuse of alcohol is an early symptom of insanity or general paralysis.

3. Great tendency to active, cerebral hyperæmia.
4. Frequency of hyperæsthesia and hallucinations.
5. Vertigo, headache, &c.
6. Paralyses.
7. Epilepsy.
8. Mental symptoms; if immediately following the injury, depression and disordered mobility; if following after an interval, weakness of mind, perversion of moral sense, growing irritability, finally, mania, with tendency to violence well marked. This form of insanity, I have seen, as described, in the case of a gentleman 65 years of age, who lost two-thirds of his scalp and the outer table of the skull consecutive to the blow of a hatchet. Mania came on the fourth week, when healing had begun, and was marked by great talkativeness and constant motion. Perfect recovery followed in the course of a few weeks.

Dr. Christian has an article on "Insanity consecutive to Acute Maladies" (*Archives Générales*, Sept. and Oct., 1873). Out of one hundred and fourteen cases, typhoid fever was the direct or indirect cause in thirty-six, intermittent fever in sixteen, eruptive fever in sixteen, erysipelas of the face in two, cholera in nine, pneumonia in seventeen, rheumatism in fifteen, other diseases in three. The form of mental disorder was, in four cases, isolated delusions; in fifteen, hallucinations; thirty-four, mania; eight, ambitious delirium; sixteen, melancholy; twenty-seven, stupidity; ten, dementia. These forms were not always distinct, but compound, mania with hallucinations occurring with stupor. The condition was usually asthenic, with disorders of motility in some cases. Many recovered from apparently hopeless dementia, and symptoms resembling general paresis.

Lawson Tait discusses "Menstrual Irregularities and their relation to Nervous Diseases" (*London Obstetrical Journal*, May and June, 1873). Epilepsy he has found, occasionally, dependent on suppressed menstruation. He cured a bad case, depending on an "infantile uterus," by galvanic pessaries, which stimulated development and induced menstruation. Insanity depending on disordered menstruation, he has found of a melancholic type. He quotes Dr. Sutherland (*West Riding Reports*, 1872), who examined into the menstrual history of 500 cases of insanity. He noticed a marked concurrence between exacerbations of mania and the catamenial period, the excitement becoming continuous in a few cases of menorrhagia. In many cases of melancholia, amenorrhœa existed. Demented patients usually menstruated well. In 162 cases of mania, two-thirds had increased excitement at the menstrual period.

The above facts have, for a long time, been perfectly well known to alienists, but have not inspired them with that belief in their causal relation to insanity which some gynæcologists claim, nor in a reliance on local treatment to any great extent. Some cases are of undoubted uterine origin; but in the majority, the cause lies deeper, the inherited constitution and temperament accounting both for the menstrual and mental peculiarities. Menstruation is a perturbing element in health, and could not fail to aggravate the sensitive condition of mania, while in melancholia there is often a general suppression of secretions, constipation, dry skin, with apathy and insensitiveness to

impressions. In dementia, the patient eats and sleeps well, as a rule, gets fat, makes blood and ought to menstruate. Dr. Sutherland says the occurrence of menstruation *with* mental improvement was always a good sign; but *without*, it is an indication of approaching dementia. This statement seems a little inconsistent with his opinion that most dements menstruate. Besides, of what value is the menstruation as a prognostic sign, if it is the *mental* condition, after all, which is the important factor?

Treatment of Insanity.

But little that is new has been written, or can be said, on the more important points in this division of our subject. We may briefly mention some of them on which most alienists are agreed. 1. The great value and importance of moral in distinction from mere drug treatment. 2. The importance of the persistent personal influence of a skilled physician. 3. The necessity of hospital treatment in a large proportion of cases. 4. The value of medium-sized hospitals, properly constructed and officered, as superior to any so-called *family-* or cottage-system. 5. The necessity of a complete control, by the physician, of the patient's whole mode of life, and all his surroundings during the curative stage of his disease. 6. Of the value of preventive over curative measures.

We have space for only a few passing remarks on these fundamental points, essential in the nature of things to success in treating all forms of insanity. Drugs are as useful in mental as in other diseases; but, in the former class, we have, in addition, a most powerful means of influencing the morbid condition. Moral agencies, in the wide sense of whatever affects the patient's state of mind from without, are more direct, speedy and efficient than medicines, and reach the brain through channels as real as those of the blood. The importance of a restriction of mental stimuli, in mania; of a diversion of morbid ideas into new and healthy channels, in melancholia; of mental impressions carefully adapted and graduated to the patient, and his stage of disease, in the stationary phases of convalescence, and in the apathy of depression and partial dementia, cannot be over-estimated.

To rightly use such various and powerful immaterial agencies, requires, as will be readily seen, special experience and skill. It is the highest office of therapeutic art, and demands more than ordinary opportunities of study, to say nothing of natural gifts, to fit the physician for it. The personal influence of a physician, so skilled and equipped, is worth all other means and measures put together.

This being the case, the necessity of hospital treatment becomes apparent. At home, the impossibility of this intimate relation between physician and patient, and this complete control of surroundings is evident. The patient should be taken out of the grooves of his daily routine and family associations, in which his ideas have been for a long time growing morbid, and placed in immediate dependency on his physician, to whom he must learn to look for help, comfort and guidance.

The impossibility of sustaining this relation to a large number of patients, would alone limit the size of hospitals for the insane. Out of three hundred patients, the demands of two-thirds would be only general or occasional, and experience has shown that three physicians can manage that number very well. A smaller number tends to di-

minish the practicability of certain modes of classification, employment, instruction and amusement. The cottage-system reduces the comparatively varied movement of hospital life to the duller level of small boarding-house existence. There is nothing of the family-life about it but the name; and if there were, it is not what the patient needs. It is what he left home purposely to avoid. If he needs home-life, he had better go home at once. A few exceptional cases may enjoy, and benefit by, cottage life; and for such, cottages might be built, in hospital grounds, but the probability of adequate medical supervision diminishes as the square of the distance from the central building.

Chloral as an Anæsthetic during Labor.—Dr. W. S. Playfair (*The Lancet*, Feb. 21, 1874), in a lecture on the use of chloral as a means of lessening the pains of labor, states that it has this advantage over chloroform, that it does not seem to diminish the strength and intensity of the pains, while it very markedly diminishes their painfulness. Another recommendation is that it is chiefly applicable at a period when we would not think of administering chloroform—towards the termination of the first stage of labor, before the complete dilatation of the os, and when the sharp, grinding pains perhaps produce more suffering, and are less easily borne, than the more forcing pains of a later stage. In cases, especially common in women of a highly developed nervous organization, in which, before the rupture of the membranes and the complete dilatation of the cervix, the pains are very severe, but short and ineffective, chiefly limited to the back, and producing little or no effect in dilating the os, and in which, after hours of fruitless suffering, we are accustomed to exhibit an opiate to our patient, expecting that, after some hours of refreshing sleep, the labor will recommence with fresh vigor and effect—in such cases, if chloral is administered, instead of the opiate ordinarily employed, the probabilities are that the same refreshing rest will be obtained without any suspension of the pains or protraction of the labor. The thin and rigid cervix which is often found in such cases will frequently relax and dilate rapidly under the influence of this remedy.

Not only in abnormal labors may chloral be advantageously employed, but it may be given in those which are natural, for the purpose of lessening the sufferings of the patient. When judiciously given, the patient falls into a drowsy state, not quite asleep, but nearly so. She is roused as a pain begins, but suffers comparatively little. The chloral does not appear in any way to predispose the patient to post-partum hæmorrhage.

Dr. Playfair gives fifteen grains of chloral for the first dose; this he repeats in twenty minutes, and usually after the second dose enough has been taken to bring the patient sufficiently under the influence of the remedy. Its further administration must be regulated by its effects. If the patient is drowsy and relieved, a third dose need not be given for three quarters of an hour or an hour; and then half the quantity will probably suffice to keep the patient in a sufficiently somnolent state. It is seldom necessary to give more than a third dose; and Dr. Playfair has never given more than a drachm of chloral during the entire labor.

False Membrane of the Stomach.—Dr. Currier reported, at a recent meeting of the Burlington Medical Club, that, in 1870, there was sent to him for examination a specimen of false membrane of the stomach, forming a perfect cast of the interior of that organ. It had been vomited, in the morning of the day upon which it was received, by a man, aged about sixty, a painter by occupation, who had for some time previous been affected by what was considered to be dyspepsia, but not severe enough, however, to interfere with his daily work. Upon placing the cast in water, its form could be distinctly seen, and no doubt existed as to its origin.—*Vermont Medical Journal.*

Bibliographical Notices.

A Treatise on the Diseases of the Eye. By J. Soelberg Wells, F.R.C.S. Second American, from the third English Edition, with Additions. Philadelphia: Henry C. Lea. 1873. Pp. 836.

The success which Mr. Wells's work has met with, and which has led to the issue already of a third English, and a second American edition, and its translation into French and German, has been well deserved. Of all the numerous treatises on the eye which exist, this possesses qualities which must specially recommend it to the general practitioner who wishes to know something of the cases he certainly will be called on to give an opinion about, if not to treat, or as a text-book for the student. The style is clear, simple and straightforward; the manner in which the different subjects are treated is eminently practical, and the discussion of varying views as to details, which, valuable as it might be to the specialist, would only embarrass the physician, who has neither time nor opportunity to study the subject at length, is as much as possible avoided.

In that portion of the work treating of the refraction and accommodation of the eye, the author has succeeded in presenting these subjects, within the necessarily brief space allotted to them in a general treatise, much more clearly and comprehensively than has generally been the case in similar treatises. The importance of this branch of ophthalmology is still in general too little appreciated.

In the present edition, many additions have been made giving the results of more recent investigations. The American Editor, Dr. Hays, has added numerous illustrations and a few notes, the most important of the latter being that on pages 673 and 674, concerning the treatment of stricture of the lachrymal passages, in which the treatment recommended by Mr. Wells is unnecessarily severe. The chromo-lithographs, purporting to be copies from Liebreich's Atlas, leave much to be desired in point of accuracy and execution. The paper and type are very good. O. F. W.

Katy Did, and Katy Didn't. An Inquiry concerning Priority in the Ligation of the Internal Carotid Artery. By William K. Bowling, M.D., Emeritus Professor of the Theory and Practice of Medicine in the Medical Department of the University of Nashville. Nashville, Tennessee, 1874. Pp. 20.

Claims for priority in matters pertaining to operative surgery, unless the title to some broad generalization is at issue, and for the invention of splints or apparatus, denote a small mind, a feeble ambition, and a narrow professional aim.

The pamphlet with the title above given, discusses a claim for priority in the application of a ligature on each side of the lesion in a bleeding internal carotid artery. In neither of the two cases which are reported did the operator know, until after the operation was completed, that the vessel round which the ligature had been passed was the internal carotid. He had simply dealt with a severe arterial hæmorrhage according to well-established surgical rules. Practical surgeons who read this paper will be ready to exclaim with M. Jourdain, "*Quoi, quand je dis 'Nicole, apportez moi mes pantoufles et me donnez mon bonnet de nuit,' c'est de la prose?*" and, with equal surprise, will receive the answer of the *maitre de philosophie*, "*Oui, Monsieur.*"

Long ago, Velpeau said that, in a case of wounded internal carotid artery, the vessel should be tied above and below; and that, because, in exceptional instances, it had proved successful to tie it only below, there was no reason why the grand rule of surgery in such circumstances should be neglected.

Incidentally, the writer of this pamphlet takes occasion to slur at any claim for originality being made by the late Dr. Twitchell, of Keene, N. H.,

for his ligature of the common carotid artery in 1807. When this venturesome step was taken by the unassisted country practitioner, few large vessels had been tied, and it was generally believed that this particular ligature would inevitably be followed by death. Dr. Twitchell, who certainly was ignorant that the operation had already been performed, was led, by *experiments on animals*, to believe that it could be safely done. He tied the artery when opportunity offered, and saved a life. This would have been a just and honorable cause for a claim of priority, had it been made, which was not the case; and, as a commentary on discussions like the one now being noticed, we quote from Dr. Bowditch's memoir of this distinguished surgeon the statement, that Dr. Twitchell's "unwillingness this case should be published was partly for the reason that the operation had been forced upon him by circumstances which left him no option."

In our Editorial capacity, we shall be excused, if, before concluding this notice, we copy Professor Bowling's tribute to medical journals, fragrant as it is with the rhetoric of a southern clime:—

"The great libraries contain a collection of all medical publications, flowing through legitimate channels, from that which humbly trickles down the mountain side, mirroring the daisy and offering drink to the bonnie lark, to that which rolls its interminable length along the lowland plain, refreshing cities and villages and hamlets, embosoming half the sky, and carpeting with green a landscape bounded in every direction by the horizon. The rill and the Amazon alike find their way to the ocean; so likewise a medical journal from the wilderness of trees and cascades, enlivened by singing birds and frisking squirrels, and made awfully grand by armies of buffaloes, in stately and silent march to 'the springs,' find ultimate companionship with that from a wilderness of chimneys and masts and streets and wheels and people, in a common library. Search, and ye shall find, is the law here as elsewhere."

BOOKS AND PAMPHLETS RECEIVED.

The Anatomical, Pathological and Surgical Uses of Chloral. By W. W. Keen, M.D., Lecturer on Anatomy at the Philadelphia School of Anatomy. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 19.

Special Rules for the Management of Infants during the Hot Season, recommended by the Obstetrical Society of Philadelphia to the thoughtful attention of the Mothers in Philadelphia. 1874. Pp. 8.

Transactions of the Fourth Annual Session of the Medical Society of Virginia. 1873. Pp. 124.

Embolism of the Arteries of the Extremities. By Samuel B. Ward, A.M., M.D. (Reprinted from the New York Medical Journal, March, 1874.) Pp. 18.

MEDICAL UTOPIA.—"I have an abiding faith in the unlimited possibilities of medical science. The day will come when physicians shall be familiar with the chemistry of diseases; when they shall know the exact poisons that produce them, and their antidotes; when they shall look upon the cure of maladies as simply a series of chemical problems and formulas; when they shall melt down all calculi and necrosed bone chemically, and not remove them by surgical operations; when hæmorrhage shall be arrested, not mechanically, but by the simple application of gases and washes; when wounds shall be swiftly healed by first intention; the ravages of tubercle shall be stayed; fevers and inflammations shall be blotted out; when all morbid growths may be melted down; cancer cured; when all morbific organic germs may be destroyed; when contagion may be annulled—and thus the average duration of human life shall be lengthened, so that the ancient prophecy may begin to be fulfilled: 'The child shall die an hundred years old.' With *force*, *matter*, *mind*—the trinity of humanity—what may not be accomplished?"—*Address of* Dr. DE LASKIE MILLER, *in the Chicago Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, April 30, 1874.

Another scheme for improving the laws relating to insanity has been before the legislature this spring, aimed at fancied abuses in insane asylums. It is noticeable that such reforms are seldom asked for by the relatives or personal friends of the insane, or by physicians, who, in the nature of things, are most likely to be watchful of their true interests. Usually, some formerly insane or unsound individual, with the encouragement, perhaps, of a few professional philanthropists, is the prime mover, and the success of such efforts is due to sympathy on the part of legislators and misplaced confidence in statements often plausible, but generally false or exaggerated.

In the present case it is a lady, who, retaining for several years the wrong impressions and prejudices often the sequelæ of acute insanity, has appealed for reform. Her plan proposes a new supervisory board, or the reorganization of the Board of State Charities, by the addition of women, and giving it new powers of control and inspection. It provides for the unexpected visitation of hospitals for the insane, and for locked mail-boxes in each ward, with a liberal supply of stationery to each patient. The correspondence of patients is to be removed from the supervision of the physician and made free, or subject only to inspection by the board. This judicious plan only needs to be extended, so as to furnish each patient with a rope and a razor, to complete its beneficent work! Supervisory boards should also at once be appointed to visit our general hospitals at unexpected intervals, to remove the bandages from all broken limbs, lest some surgeon should have wickedly imposed restraint on a sound leg or arm!

Such interference with the physician's control of his patients' relations to the outer world would, in some cases, be fatal to all hopes of cure. As to its general effect, it may be said that patients, daily solicited to pour out on paper those morbid ideas, feelings and complaints it is the effort of the physician to suppress, might as well be relieved at once from all restraint and put on a par with their sane but deluded fellowmen outside. Such a law would be a hard blow to any superintendent's self-respect. He, with relatives and friends, watches the patient's interest with a jealous eye. His reputation is already at the mercy of attendants, visitors, convalescent patients, and sharp-eyed lawyers in want of briefs. He is watched also by his board of trustees, and, in this State, by a general board of charities. The ques-

tion naturally arises in hearing of the supervisory complications proposed, "Who will watch the new board?"

We are glad to be able to state, that this effort at amending the law has resulted only in a provision allowing patients to write once a month to the Board of State Charities, a permission not calculated to do much harm—or good.

Two cases of very different natures, but which may both be classed as human vivisections, have lately come to our notice. The horrible details of the finding of the mutilated body of a child but four years old, when killed by wanton tortures, are familiar to our New England readers, as are, also, the circumstances of the arrest and examination of the boy Pomeroy, the alleged murderer. He was (shall we say criminally?) liberated on probation last February from the Reform School, where he was serving a sentence for numerous similar crimes, in consequence of which more than one, we believe, of his infant victims perished miserably. We are prepared to hear much trash about "undeveloped moral faculties," "delusional insanity," &c. &c., but we confess we are shocked at the disgusting effusions which have already appeared in the papers about the "sympathy," forsooth, which this hopeful young gentleman so naturally inspires, and the means to restrain him in future. We wish to protest, at the beginning, against this wicked sentimentality, which is responsible for the death of his last victim, an only child. We would ask why, if found guilty, is he not to be hanged? We do not desire this consummation for the sake of punishment, nor solely for the sake of example, but for the safety of the children of the Commonwealth. If he be condemned to imprisonment for life, some "large-hearted philanthropist" will not fail, sooner or later, to procure his release. And then, as sure as the sun will rise, he will return to his amiable idiosyncrasies, and future parents will curse the "humanity" which shall condemn their children now unborn to be killed in torments.

The second case is not known outside of professional circles. The details will be found in the April number of the *American Journal of Medical Sciences*, reported by the operator, Dr. Bartholow. A woman, thirty years old and of feeble intellect, was admitted to the Good Samaritan Hospital, in Cincinnati, on account of an epithelioma, which had destroyed some two inches of the top of the skull, leaving the dura mater exposed. Dr. Bartholow, anxious to repeat on the human subject the experiments of recent investigators of the functions of the brain, proceeded to apply powerful galvanic and faradic currents to the dura mater and to the substance of the brain by needles of

various lengths insulated to near the points. Dr. Bartholow does not accuse himself by excuses. He naïvely remarks: "As portions of brain-substance have been lost by injury, or by the surgeon's knife, and as the brain has been deeply penetrated by incisions made for the escape of pus, it was supposed that fine needles could be introduced, without material injury, into the cerebral matter." We have not space to describe all the interesting experiments which, on this "supposition," were undertaken; but we will give "*Observation* 3, *to test faradic reaction of the posterior lobes*," in the operator's own words:—

"Passed an insulated needle into the left posterior lobe so that the non-insulated portion rested entirely in the substance of the brain. The other insulated needle was placed in contact with the dura mater, within one-fourth of an inch of the first. When the circuit was closed, muscular contraction of the right upper and lower extremities ensued, as in the preceding observations. Faint but visible contraction of the left orbicularis palpebrarum, and dilatation of the pupils, also, ensued. Mary complained of a very strong and unpleasant feeling of tingling in both right extremities, especially in the right arm, which she seized with the opposite hand and rubbed vigorously. Notwithstanding the very evident pain from which she suffered, she smiled as if much amused.

The needle was now withdrawn from the left lobe and passed in the same way into the substance of the right. When the current passed, precisely the same phenomena ensued in the left extremities and in the right orbicularis palpebrarum and pupils. When the needle entered the brain-substance, she complained of acute pain in the neck. In order to develope more decided reactions, the strength of the current was increased by drawing out the wooden cylinder one inch. When communication was made with the needles, her countenance exhibited great distress, and she began to cry. Very soon, the left hand was extended as if in the act of taking hold of some object in front of her; the arm presently was agitated with clonic spasms; her eyes became fixed, with pupils widely dilated; lips were blue, and she frothed at the mouth; her breathing became stertorous; she lost consciousness, and was violently convulsed on the left side. The convulsion lasted five minutes, and was succeeded by coma. She returned to consciousness in twenty minutes from the beginning of the attack, and complained of some weakness and vertigo."

Observation 4 was similar, but less severe. Two days later, the patient was brought down for similar experiments with the galvanic current; strange as it may appear, "she was pale and depressed, her lips were blue, and she had evident difficulty in locomotion." Presently, she had rhythmical convulsions of the right side of the neck and of the right arm. The experiment was abandoned. The next day, she died. The autopsy showed great congestion of the brain, and purulent exudation on the left side. There was a thrombus in the longitudinal sinus, which lay nearly in the centre of the ulcer. The inflammation was greatest at points not at all touched by the needles, but their

tracks were marked by lines of "diffluent cerebral matter." We are inclined to agree with Dr. Bartholow that the immediate cause of death was the spread of the original disease, and probably it could not have been averted, but the experiments strike us as sufficient to destroy any chance that may have remained. Nothing can excuse this cruelty and recklessness to a weak-minded patient, who enters a charitable institution in search of relief, or, at least, of a quiet death. No one can accuse us of sentimentality, but we have a conscience which tells us that we should not pass this by without expressed condemnation.

CHARCOT ON THE DIAGNOSIS OF HYSTERO-EPILEPSY FROM TRUE EPILEPSY.—The *London Medical Record*, March 18, 1874, states that M. Charcot, in a recent clinical lecture, called attention to the traits which distinguish hystero-epilepsy from true epilepsy. In the former, the attack is announced by premonitory symptoms of rather long duration. In every kind of hysteria that can be called ovarian, these premonitory symptoms consist in an aura starting from the ovarian region, and reaching successively the epigastrium, the neck, and finally the head. These curious premonitory phenomena are wanting in epilepsy, in which the premonitory symptoms are sensations in altogether a different part, which ordinarily precede the attack by only a few seconds.

The cry of the hystero-epileptic at the moment of the fall is generally prolonged and modulated; it can hardly be confounded with the short cry of the epileptic. When the patient has fallen, the symptoms in the two affections are much alike during the convulsion. But the differences soon re-appear; at the moment when the epileptic is seized with a snoring which recalls apoplectic stertor, the hystero-epileptic seems, on the contrary, to wake up, sometimes to return to the former condition, sometimes to offer a succession of symptoms making, in some way, a new period, which might be called the period of contortions. These contortions vary with different patients, and are succeeded by delirium relatively quiet, one of the characteristics of which are hallucinations of sight and hearing. They hear bells and voices, &c., and see every kind of animal, and try to escape from these imaginary beings.

The delirium, which at this point resembles delirium tremens, is quite different from epileptic delirium, which consists mostly in maniacal excitement, accompanied sometimes by extreme violence, and of a gloomy character, which renders the patient very dangerous.

If it be a woman who is threatened with an attack the nature of which is doubtful, compression of the ovary will contribute to clear up the diagnosis; if there be no effect, then one has to do with an epileptic; in the hystero-epileptic, though the ovary may be but slightly affected, it will produce, if not always a complete arrest of the attack, at least a modification, more or less marked, in the symptoms.

Sometimes the attacks are connected in a series and produce, in the one case, a state of hystero-epileptic disease, in the other of epilepsy. In these cases, thermometry is of importance. In the epileptic in a state of disease, the temperature rapidly attains a great height, 40°, 41° and even 42° Cent. After many attacks of hystero-epilepsy, the temperature is the same as it is at the end of the first attack.

Besides the convulsive accidents, there are others which facilitate the diagnosis. Epileptics are irascible, subject to impulses which make them dangerous. Hystero-epileptics are capricious, fantastic, but on the whole are hardly dangerous. Vertigo, which is so frequent in the interval of the attacks of epilepsy, has not its representative in hystero-epilepsy.

As to the intellectual faculties, the hystero-epileptics preserve them as they were originally; the epileptic, if the disease is intense, loses his intelligence every day, and he at length falls into a kind of stupor which generally ends in dementia. These marks, says M. Charcot, will suffice in general to separate clinically two affections of which the prognosis markedly differs.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, April 15 and 18, 1874.)

OPERATIONS were performed in the following cases :—Stricture of the Urethra, Tumor of Neck, Abscess, Hare-lip, Exostosis of Orbit, Hypertrophied Tonsils, Fish Bone in the Œsophagus, Deformity of Leg. During the week, Strangulated Inguinal Hernia, Necrosis, Epithelial Cancer, Fistula and Fissure, Epithelial Cancer, Dislocation at the Elbow-joint, Lacerated Hand, Foreign Body in Hand.

Stricture of Urethra—of gonorrhœal origin and eight years' duration, in a man forty-six years old. Frequent attacks of retention have always been relieved by the catheter, except in one instance, when the bladder was punctured over the pubes. A retention on admission was relieved by a hot bath and an opiate. Under ether, a tight and unyielding stricture was found in the membranous portion of the urethra, which barely admitted the smallest-sized whalebone bougie. A number of false passages, the result of previous catheterization, impeded the passage of any instrument, and it was only after an hour of careful manipulation that the smallest guide of Voillemier could be made to engage its point in the stricture, but not to enter the bladder. As the patient could pass water sufficiently for his comfort, further measures were deferred until a certain amount of dilatation by bougies had been accomplished.

Tumor of Neck—in a boy twelve years old. A recurrent growth of the size of a walnut, located beneath the skin, just behind the angle of the jaw. It was excised by Dr. Clark.

Abscess—of the face, following the extraction of a tooth, and situated midway between the angle and symphysis of the lower jaw. Opened by Dr. Clark.

Hare-lip—in an adult. The fissure had been operated on in Ireland about eleven years since; union had taken place only at the border of the lip. The remaining deformity, an opening from the nostril downward, illustrated the propriety of an early removal of the sutures, since it appeared that, at the time of the original operation, they had been left twelve days, and were clearly a cause of the untoward result. The edges of the opening were refreshed, and united by a large number of fine silk sutures.

Exostosis—of the frontal bone, in a woman forty-two years old. It was of the size of a walnut, of four years' growth, at times quite painful and located on the superior margin of the orbit, external to the supra-orbital notch. Dr. Cabot cut down upon the projection and removed it with bone forceps.

Hypertrophied Tonsils—in a girl five years old. Excised with the tonsillotome.

Fish Bone in the Œsophagus—of a woman. Removed by the bristle probang.

Deformity of Leg—of two years' duration, in a boy five years old; resulting from disease, and consisting of extreme flexion of the knee-joint, with dislocation of the head of the tibia backward; the latter was so much displaced that it had drawn the patella downward between the condyles of the femur, completely obscuring its outlines. The patient being etherized, the leg was extended and then bandaged to a straight splint. With such an amount of deformity, it was thought exceptional for the head of the tibia to

maintain its relations with the condyles during extension, without division of the hamstring tendons.

Strangulated Inguinal Hernia—in an old man, who had been ruptured for many years. On entrance, he was in a state of collapse, and able to give only an imperfect account of himself. There was a small, irreducible tumor in the right inguinal region, and he presented symptoms such as would be expected in a case of strangulated hernia. No attempt at taxis was made. On opening the hernial sac, which was old and much thickened, its cavity was found to be filled by a thin and distinctly defined cyst formed in the walls of the peritoneal lining, containing a clear, transparent fluid. It was in size about equal to that of a filbert. There was no intestine or mesentery in the sac. The patient died, without reaction, twelve hours after admission. At the autopsy, there was found a perforation of the small intestine in the centre of a portion of the ileum, about four inches in length, which bore the marks of strangulation, and which had been returned to the peritoneal cavity before the patient's entrance. The irreducible tumor consisted of the cyst mentioned.

Necrosis—of ten years' duration, in a man twenty years old. The disease involved the lower and inner portion of the shaft of the femur; fistulous openings on the inner and outer aspects of the thigh communicated with an extensive surface of denuded bone in close relation with the femoral artery and the cavity of the knee-joint. The sinuses were laid open, but non-interference with the bone was thought advisable for the present, as the sequestrum was not loose, and the extensive operation which would be required for its removal not justified by the discomfort of the patient's condition.

Epithelial Cancer.—The disease consisted of an ulcerated surface as large as a cent, on one side of the bridge of the nose in an elderly man. Excised, and covered by a flap transplanted from the cheek.

Fistula and Fissure—of the anus, in a woman. The fistula, which did not communicate with the rectum, was laid open by Dr. Clark, and the sphincter ani ruptured.

Epithelial Cancer—of the lower eyelid; a superficial ulceration, not involving the cartilage, in a woman fifty-three years of age. Excised and edges of wound brought together by stitches.

Dislocation at the Elbow-joint—in a man thirty-one years old, caused by being caught by the belt of a revolving shaft. The radius was dislocated outward and the ulna backward; there was also a simple fracture of both the radius and the ulna in their upper thirds. The dislocation was reduced and the limb bandaged to an internal angular splint.

Lacerated Hand—in an adult, the result of a planing-mill accident. Amputated through the middle of the metacarpal bones, the flaps being taken from the dorsum of the hand and fingers.

Foreign Body in Hand.—A piece of steel was thrown with sufficient force to imbed itself deeply in the back of the hand, wounding the veins, from which there was severe hæmorrhage. The wound was enlarged, the foreign body extracted and the bleeding vessels tied. H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THE surgical operations last Friday, April 24th, were as follows:—

Dr. Homans Amputated the Thigh of an adult male patient. The man fell from a staging on the tenth of January last, the accident resulting in a compound fracture of the tibia and fibula and in dislocation of the hip on the same side. The dislocation was reduced immediately after entrance to the hospital, but the patient refused amputation of the leg. Subsequently, there was great inflammation of the limb, the suppuration extending above the knee and into the soft tissues of the thigh. The patient having nearly recovered from this condition, and there being no attempt at repair in the fractured bones, amputation of the thigh was performed, the section being in the middle third, with long anterior and posterior flaps.

Dr. Williams operated in a case of Convergent Strabismus in a child. The strabismus affected both eyes, and the tenotomy was accordingly double. The conjunctiva was incised below the meridian line of the eye, and a stitch was taken in the incision, both to promote the prompt healing of the wound and to prevent the reunion of the divided tendon too far back.

Dr. Williams removed a Chalazion from the lower lid of an adult patient.

He also showed a child affected to a very marked degree with Ecchymosis of the conjunctivæ and of the lower lids, the result of whooping cough. The condition was unusual in degree, the extravasation being general outside the corneal limits. No treatment was needed, as there was no inflammatory action.

Dr. Homans operated in a case of Necrosis of the head of the Tibia, the patient being a young woman. The disease appeared ten months ago, the symptoms being local pain and swelling. Three months ago, the swelling was incised and some dead bone removed, with temporary relief. The original symptoms had now returned. The diseased part was exposed by a crucial incision, and considerable carious bone removed by means of the gouge. The wound was left open.

Dr. Williams performed a secondary operation on the patient for whom iridectomy was done last week. The operation for artificial pupil had resulted successfully, without consecutive inflammatory action, but the opening through the iris now disclosed the fact that the capsule of the lens hung like a veil behind the new pupil. The accident (an explosion of gunpowder) had ruptured the capsule, and the lens had been absorbed by the aqueous humor, leaving the envelope behind. The removal of this capsule, through an incision in the upper segment of the cornea, left the field of the artificial pupil free.

F. W. Draper.

Correspondence.

Letter from Philadelphia.

[From our Regular Correspondent.]

Philadelphia, April 8, 1874.

"The man who would scruple to make a pun would not hesitate to commit a burglary."—*Anonymous.*

"The seeds of punning are in the minds of all men."—*Addison.*

"It is to be observed that feeling, or pity, or commiseration, or grief, are not to stand in the way of a pun—that personal defects are to be made available, and that sense, so as the sound answers, has nothing to do with the business."—*Theodore Hook.*

But what is to be done with the wretch who *ruins* a pun for you?

The *bond* which connected the Siamese twins, because of its lucrative worth to them, was so truly suggestive of *coupons*, that one of my share of those seeds which Addison finds in the minds of all men, burst into a poor scentless blossom, and led me, in my last letter, to remind you that this "Siamese *bond*," unique in its commercial value, had supplied the twins with *coupons* for many years. But your compositor! He is an anti-punster! "The incarnation of the spirit of intolerance—his singleness of apprehension cannot stand the shock of a double meaning." Hence he unmercifully made me say that the "*band*" had supplied the twins with coupons. True, in a sense which not only murders my poor pun, but degrades me into a public use of slang—a commodity which I employ only in the strictest and most domestic privacy. I forgive your compositor; and, as evidence of good feeling, will give him another chance, as follows:—

A lady friend of mine recently suffering the tortures of dyspepsia and its frequent acolyte, constipation, was asked by a sympathetic sister, "Do you ever *knead* your bowels?" The invalid meekly replied, "I can't very well do without them." Both ladies, being wits, saw the unintentional hit, and

the resulting burst of merriment effectually chased the blue devils from the dyspeptic. Not a useless hint in the treatment of dyspepsia.

Besides the havoc created by your type-setter, I find that the closing paragraph of my last letter to the JOURNAL roused the ire of the *Philadelphia Medical Times* into refutation of my echo of the report, heard and read on all sides, that the remains of the Siamese twins would be "carried through the States on exhibition." The *Times* wields a trenchant pen. I therefore feel duly grateful that I am not the author of this report, and appreciate the recognition of this fact by the *Times*. The Editor mildly terms the report an "atrocious libel"; nevertheless, I feel that I have had a narrow escape. A son of each twin has been in town during the past week, and I am seriously glad to be able, not only to deny the above report, but to tell you how deeply and tenderly these young men were attached to their fathers. They were both absent from home when the twins died, and the real truth proves to be that the objections of the widows to the removal of the bodies of their husbands were overcome only with the greatest difficulty. If the young men had been at home, the College of Physicians would never have made the *post-mortem* examination of the famous ligament. I sincerely thank the *Times* for believing in my readiness to correct an unjust report. I do so with the utmost heartiness.

At a meeting of the College of Physicians, held last week, Dr. Harrison Allen, of the Twin Commission, re-presented the official report of the autopsy, together with twenty-six drawings of the ligament, at various stages of the dissection, of the livers, spleens, &c. But, since the report (now very much detailed) and the drawings will soon be published *en brochure*, I will say no more about it. I may add to my former letter, that Eng's liver was not displaced to the left, as at first stated. Imagine the twins standing face to face—their true congenital position. The left and right lobes of their respective livers would then be opposite each other and normally situate. This was just their position. The bridge of hepatic tissue linking the two organs proceeds from longitudinal fissure to longitudinal fissure, surrounded by the suspensory ligament. The histological character of the bridge you will learn from the details soon to be published. The spleens are remarkable in presenting precisely the same shape and same peculiar anatomical feature, viz.: a deep sulcus which crosses each spleen in a diagonal direction. Yet one organ is much larger than the other.

The sons of the twins have removed the bodies of their fathers to North Carolina.

The yearly commencements of the medical schools of Philadelphia, the alumni suppers, the parties complimentary to successful essayists, &c., have taken place since I last wrote you. The University and Jefferson College Medical Schools held their commencements, on different days, of course, in the Academy of Music. These affairs create much interest. There being, on these occasions, a great demand for seats, the large audience assembles an hour before the exercises begin, and is meanwhile entertained by an orchestral concert. At the appointed hour, the faculty, board of trustees and alumni, having entered the building by the stage door, march upon the stage to appropriate music. Quiet obtained, a prayer is offered by a clergyman. The dean of the faculty then reads the names of the graduates in alphabetical order. The graduates occupy reserved seats in the parquet. Each man responds to his name by going upon the stage, where he takes his stand by the side of his antecessor, until the line stretches the entire width of the stage. The president of the board of trustees then makes a formal and general presentation of diplomas in Latin, one repetition of the formula answering for the whole line of graduates. The college janitor then gives a diploma to the man at the head of the line, who passes it to the man beside him, he to the next, and so on to the end. This parchment is made to act as the proxy of the whole quantity of diplomas, which are afterwards distributed to the graduates at the college, without formality, by the janitor. The regulation formality gives the diploma, which serves at commencement, an end-over-end motion as it passes from hand to hand, and thus each man is presented with

his parchment. One line of graduates having been disposed of, another is called. Same Latin formula; same revolving of the parchment, &c., until the graduating class becomes commissioned. Then follows a valedictory by one of the professors.

Finally, the great heaps of bouquets, baskets, wreaths and other ornamental designs of flowers, which all this time have occupied conspicuous places upon the stage, are given away. Besides these fragrant gifts, are cases of instruments, books, pictures, &c., all gifts of friends, and intended either for graduates, professors or quiz teachers. To each object is attached a card bearing the name of the recipient. Members of the quiz-combinations read these names aloud, and the fortunate ones come forward to receive their gifts. These exercises are varied by interpolation of orchestral music.

At the Jefferson College commencement this year, there was also an award of prizes for essays. Last year, each professor offered a prize of fifty dollars for the best thesis on any subjects relating to his branch. There was, too, a general prize of one hundred dollars for the best essay on any medical subject. This united offer on the part of the faculty appeared to be fruitful, since several prizes were awarded. Another pleasant feature of the occasion was the presentation to the board of trustees, by the alumni, of a fine half-length portrait, in oil, of Prof. Joseph Pancoast, now retired from the faculty. The graduates are assessed a small amount each toward defraying the expenses of commencement day. These exercises, as you may imagine from my hasty sketch, are nothing but delightful to the graduates and their friends.

On the evening of commencement day, or of the day following, one of the faculty entertains the graduating class at his house, giving them an abundant and elegant supper. It were superfluous to add that on these occasions no anorexia exists on the part of the guests. Both the University and Jefferson College graduated large classes this spring—the former sending out 121, the latter 151, new M.D.'s.

The Hahnemann Medical College graduated a class of 27 members against a class of 47 in 1873. It is a pity the homœopathic classes are not as infinitesimal as their doses. A loss of nearly fifty per cent. in one year, however, is encouraging.

The long-expected, anxiously-awaited, hotly-contested election of a new professor to the chair of anatomy in Jefferson College came off last evening. Sixteen ballots were taken before the chair was filled. Dr. Wm. H. Pancoast, son of the Emeritus Professor, was the successful candidate.

Dr. Wm. Pepper, almost contemporaneously with the German clinicians, and quite in ignorance of European experiments, has been testing the virtue of injections of Lugol's solution into pulmonary cavities. You may have seen his paper on the subject in a recent number of the *Philadelphia Medical Times*. The spiritualists hold that all new and valuable inventions and discoveries originate in heaven, from whence they are simultaneously conveyed into minds blessed with proper receptivity, in various parts of the earth. Who knows? One vainly wonders how this broadcast sowing of the same idea comes about.

I promised you details concerning Dr. Weir Mitchell's treatment of nervous diseases. As yet I do not feel satisfied with the amount of material which I have gathered, but let me give you one case typical of Dr. Mitchell's keen-sightedness, his accuracy in diagnosis, his firmness in treatment. Not long ago, a young lady was brought from Rhode Island to Philadelphia on a bed to which she had been confined for many months. In her behalf, the medical experience of Rhode Island had been exhausted. Dr. Hammond had been called from New York; he advised longer tarry in bed. Brought to Philadelphia, Dr. Mitchell was called. He made three visits before he began treatment. The peculiarities of the young lady's case were spinal weakness and inability to straighten the lower extremities, which were kept chronically drawn up. At his fourth visit, Dr. Mitchell requested his patient to straighten her limbs. "But I *can't*." "But you *can*. Are they never straightened at night?" "Yes, Doctor. No one ever before asked me that

question." The physician with but little difficulty succeeded in extending the patient's limbs. "Now be kind enough to sit up." "But that is impossible. I haven't been able to do it for two years." "You are able now. Please sit up." Patient sat up. "Bring her wrapper, hose and slippers, and put them on. Put on a neck-tie. Belt her waist. Now I wish you to stand." The patient, dumbfounded by such unheard-of demands in her disabled condition, began to cry. "Good morning," said the Doctor, taking his hat. "Where are you going, Doctor?" "I am going away. I never attend patients who do not obey me." "Come back, Doctor, I will obey you." "Then, please stand up." She stood up. "But, Doctor, it makes me so dizzy!" "I expected it. Take my arm." She took his arm. He led her slowly out of the room, down stairs, out of doors. She returned without aid, and *did not go to her bed again.* She was cured, or rather conquered, for this was a case of hysteria, and in this manner Dr. Mitchell treats his hysterical patients, but, of course, does not always meet with success so sudden. He is never unkind, never rough, but inflexible, quick in manner, decided in speech, yet gentle and exceedingly polite. It need not be said that a physician must have a brilliant reputation behind him in order thus to browbeat hysteria.

A second lady came to Dr. Mitchell. Her nervous force was simply exhausted, or, as Dr. Mitchell expressed it, "her two batteries were no longer able to supply the necessary stimulus." She came, or was brought, from Maine, ready to undergo tortures, if the Doctor ordered it. Anything in order to be helped. "I am going to give you a hard task. I wish you to lie in bed for two months. You are not to speak. You are not to *lift your head* for any purpose whatever. You are to be fed, bathed, dressed, moved, like an infant. If you wish to turn on your side, the nurse will move you. You are not to lift your head from the pillow until I permit it. When the bed linen is renewed, you will be carried to the couch and lifted back to bed again." In short, the treatment consisted in the enforcement of a condition of utter, absolute passivity. For two months, the patient was simply a breathing statue. At the end of that time, she was buoyant, strong, well. Dr. Mitchell's treatment of locomotor ataxia is similar to that used in this case. It is the requirement of *absolute rest*, and it succeeds. Dr. Mitchell believes there is no other rational treatment for this lesion.

UNGENANNT.

LETTER FROM RUSTICUS.

DOWN EAST, April 10, 1874.

MESSRS. EDITORS,—I occasionally come across some new article of medicine as I turn the leaves of your JOURNAL. In one of the last numbers, there were two things spoken of which must be of great value. One of them, was a substitute for cod-liver oil. I told one of my patients, who hates oil, that somebody had got up a "caoutchouc electuary." Well, I had to explain how to mix the thing with turpentine and sugar and honey. "But," says she, "if it'll cure it, it 'ud prevent it, and I don't believe anything of the kind. I chewed injy-rubber, and I chewed pitch, up to the time that I was took sick, and you know we always raised our own honey." I didn't care much whether she tried it or not, only I havn't been able to find her any variety of medicine. I couldn't help thinking, though, how our friends of the Boston University might take advantage of her experience as a "proving." This poor girl always chewed rubber and pitch, and eat honey, till, finally, she's got consumption, and now refuses to eat the same dog's hair. I suppose if they get hold of Dr. Varick's prescription, they'll say: "We knew it before. We've always rubbed out every mark of tubercle with it. Caout.^{6000} is sure, just as Natron Mur.^{10000} is sure to cure sick-headache. No matter if you do eat salt with your food in abundance. The salt you eat isn't the one ten thousandth dilution, any more than a junk of rubber or a whole shoe is Caout.^{6000}" There's no way of getting round these fellows.

You tell them that mercury isn't soluble in alcohol, or that you can't make a saturated solution of pure paving stone, and you get the knock-down answer—"According to *our* system, everything is soluble in alcohol, and you can make a saturated solution of anything."

Number two was the novel use of the stomach-pump. The doctor passed the pipe into the rectum, and used it as an "aspirator." Now, I suppose most of your readers have seen or heard of using a pair of old fashioned bellows for this same purpose, and, in later days, of using a common elastic rubber syringe. I have cleaned out several bowels so. When you come to use the stomach-pipe in that way, it seems rather too much like shifting end for end. But then—a man shouldn't take poison. If he didn't, he wouldn't have to use the same pipe.

What is the harm in eating new bread? I find that some folks eat it all their days, and never feel the worse for it. Most people, I find, become troubled by it in time. Indigestion, with its usual disagreeable attendants, is the rule. There are two sets of these dyspeptics; one is made up of the large butter eaters, who take the new bread hot enough to melt the butter, which then becomes very indigestible. The second class are those who bolt new bread without much chewing. They can't do this with stale bread, and I believe if they chewed the new bread as thoroughly as they are obliged to chew the other, it would do them no more harm.

You will find the same indigestion from eating sweet potatoes. Those who chew them up well have very little trouble therefrom, while most children put huge junks in their mouths, and swallow the mouthfuls with little mastication. These children have swollen bellies, and immense quantities of wind, talk in their sleep, have bad breath, and are very apt to have cholera morbus. Indeed, I think I see more cholera morbus every year caused by sweet potatoes than by unripe or spoiled fruit. Cannot some of your city doctors let us know their experience in this matter?

Yours truly, RUSTICUS.

THE "BASTO" TREATMENT OF FISTULÆ.

BOSTON, April 15, 1874.

MESSRS. EDITORS,—The paragraph under the head of *Medical Miscellany*, in your issue of the 9th inst., relative to the secret remedy of the quack Basto, suggests one or two thoughts. First, there is not much doubt that this fellow Basto had a good deal of success in the treatment of hæmorrhoids and fistulæ. Isn't it worth while to endeavor to discover to what this success was due? The application of caustics in these two affections is no new thing, but Basto may have been able to impart some information as to the proportion of potash to the vehicle, in certain forms of both these diseases. Was there anything in the frequency and duration of the applications, or in any of the details of the treatment, which tended to ensure success?

Now your paragraph intimates that one or two practitioners in this city are in possession of the secret. Of course, they believe that it has unusual merits. Ought we not all to share the benefits thereof, and will you not, on the part of the profession at large, request them to make the whole thing public as soon as possible? BEACON HILL.

PHILADELPHIA, April 18, 1874.

MESSRS. EDITORS,—The paragraph in your number of April 16th, on the effects of powerful oratory, does not quite do justice to Mr. Talmage's wonderful gifts; it may be worth while, in a medical point of view, to add the additional facts given by the *New York Examiner*, viz.: "The young lady, who was from Rhode Island, was of the age of seventy (70), and the fatal seizure took place on the way *to* the church, so that the venerable deceased did not hear a word of that terrible sermon. There was an inquest, but nothing was said about 'mental excitement.'"

Yours veritably, W. H. FINN.

Medical Miscellany.

In accordance with a new law of Nova Scotia, which goes into effect on the first of May, a fine of twenty dollars a day is incurred for practising medicine without being registered.

For Vertigo, or Dissinesse.—Make tents of linnen cloth, and dip them in cinamon water, and put them up into thy nostrills, and they will instantly give thee help to admiration.—*Culpeper*, 1656.

Death from Hæmorrhage caused by the Bite of a Dog.—An inquest was held in the county Tipperary on the body of a poor man who died suddenly; a dog had bitten him in the leg, cutting him severely. He only walked about thirty yards, when he fell, exhausted from loss of blood, and died shortly after.—*The Medical Press and Circular.*

Pathognomonic Sign of Pertussis.—The practitioner may be sometimes consulted on a case of whooping cough, without having the opportunity of witnessing a paroxysm. In such a case, M. Bouchut recommends him to examine the frænum linguæ, which he will always find the seat of a small ulcer in children the subjects of pertussis, or who are on the point of becoming so.—*The Medical and Surgical Reporter.*

Death from Lancing of the Gum.—In the *American Medical Journal*, for April, are given the particulars of the death of a child, fourteen months old, from hæmorrhage occasioned by the lancing of the gum over a molar tooth. The blood oozed from the divided gum for three days, in spite of all efforts to suppress it. The child was well developed, and healthy from birth, and no previous suspicions had been entertained of the existence of a hæmorrhagic diathesis.

Abnormal Tapeworm.—At a recent meeting of the Manchester Medical Society, Mr. Cullingworth showed an abnormal tapeworm expelled by a woman, aged 40, who had passed joints from time to time for a period of two years. The parasite was three yards long, and had a crest, or ridge, running along its whole length, in the middle line, so that each joint, viewed endwise, or in section, appeared three-branched. So far, it corresponded with a specimen in the Middlesex Hospital Museum, and named by Cobbold *tænia lophosoma;* but it differed in one very important point, viz.: that the genital pores were almost universally situated in the centre of the crest of each segment, instead of at the lateral margin.—*The British Medical Journal*, April 11.

Double Spleen and Kidneys.—In a *post-mortem* examination made by Surgeon-Major G. W. Jameson, in the city of Ghazeepore, the following abnormalities were found. In addition to one healthy, well-developed spleen, there was a second smaller one, connected with the abdominal vessels by separate communications of its own, and situated between the ordinary spleen and the liver. The smaller was of a roundish shape, and had a distinct hilus.

Weight of first spleen, ...	9 oz. 1 dr. 6 gr.
" " second spleen.	1 oz. 1 dr. 30 gr.

There were also found four kidneys; two of these were well developed, healthy, and in the usual situation, while the second pair were small, intensely inflamed, and situated lower down than the others. The four kidneys had each their separate arterial and venous attachments and ureters.

Weight of the two normal kidneys	5 oz. 4 dr.
" " " " smaller "	1 oz. 4 dr. 24 gr.

The bladder was exceedingly small, walls much hypertrophied, and the mucous coat somewhat inflamed.—*Edinburgh Medical Journal*, April, 1874.

Fracture of the Finger from Muscular Action.—A man, 55 years of age, in making a back-handed blow at his retreating son, just missed striking him, thereby expending the extreme radial extension of his wrist without meeting with the expected amount of resistance. He immediately experienced great pain and loss of power over the hand, and repaired to the Charing Cross Hospital. It was then ascertained that he had sustained a fracture of the proximal extremity of the index finger of the left hand, the movable fragment of the bone being drawn upwards by the extensor carpi radialis major, and powerfully abducted by the lower fibres of the first dorsal interosseous muscle.—*The British Medical Journal*, March 28.

Decline of Homœopathy.—The homœopaths will soon be following the lead of Prof. Clinkscales, of the eclectic faculty, in asking, Who and what are we? We observe that out of eleven medical books reviewed in the Ohio *Medical and Surgical Reporter* (homœopathic) for January and March, eleven are standard works of the regular profession—all of them either already noticed or about to be noticed in the pages of the *Times*. In nearly every case, our homœopathic cotemporary recommends these works very strongly to its readers. Verily, homœopathy is passing away: in the downward path after the stage of delusion, comes the stage of fraud.—*Philadelphia Medical Times.*

NOTES AND QUERIES.

Fas Doceri.

The *Philadelphia Medical Times* advises students desirous of getting "*the most valuable diploma in the country*," to study in Boston at the Harvard School, if they have "nerve and muscle to contend with New England climate, *customs* and examinations" (the italics are ours). The climate and examinations we know something about, but what of the customs? Surely, nowhere in the world is the diligent student treated with more cordiality, consideration and encouragement than in Boston. Querendum.

A Speedy Cure for Balanitis.

A few grains of tannin applied locally has cured many cases of chronic and severe *balanitis*. It is better than all the "*mild astringent lotions*" of Druitt and other surgeons, because it is more easily applied, always readily obtained, and, in five cases out of six, one application is sufficient not only to afford relief, but to effect a permanent cure.

Mack, Jr.

Died,—In Brooklyn, N. Y., April 21, Dr. Benjamin Mann, of Roxbury.

Mortality in Massachusetts.—*Deaths in sixteen Cities and Towns for the week ending April* 18, 1874.

Boston, 149; Worcester, 22; Lowell, 19; Milford, 5; Chelsea, 5; Cambridge, 21; Salem, 8; Lawrence, 18; Lynn, 12; Gloucester, 2; Fitchburg, 1; Newburyport, 11; Somerville, 7; Fall River, 22; Haverhill, 5; Pittsfield, 7. Total, 314.

Prevalent Diseases.—Consumption, 54; pneumonia, 48; scarlet fever, 14.

Two deaths from smallpox occurred in Fall River.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, April 25th, 163. Males, 82; females, 81. Accident, 2; aphthæ, 1; apoplexy, 3; bronchitis, 9; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 10; cancer, 6; consumption, 37; convulsions, 5; croup, 2; debility, 2; diarrhœa, 1; dropsy of the brain, 6; dysentery, 1; diphtheria, 2; epilepsy, 1; erysipelas, 2; scarlet fever, 3; typhoid fever, 2; gastritis, 1; disease of the heart, 6; hæmorrhage, 1; homicide, 1; intemperance, 1; intussusception, 1; disease of the kidneys, 2; disease of the liver, 4; laryngitis, 1; congestion of the lungs, 3; inflammation of the lungs, 15; marasmus, 5; old age, 1; paralysis, 3; pleurisy, 1; premature birth, 4; peritonitis, 4; puerperal disease, 5; rheumatism, 3; chronic disease of the stomach, 1; tabes mesenterica, 1; suicide, 1; whooping cough, 2.

Under 5 years of age, 55; between 5 and 20 years, 10; between 20 and 40 years, 36; between 40 and 60 years, 28; over 60 years, 34. Born in the United States, 115; Ireland, 35; other places, 13.

THE

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Original Communications.

THE MUTUAL RELATIONS OF DRUGGISTS AND PHYSICIANS.*

By CHARLES E. BUCKINGHAM, M.D. Harv.

Professor of Midwifery and Medical Jurisprudence in Harvard Medical School.

IT was not till about seventy-two hours ago, that I understood that my province for this evening was to be so extensive as an address to others than the graduates of this School. Without further explanation, then, I shall try to mentally resolve this entire audience into a class who have received their diplomas, and shall trust that no one of you will be offended by the experience which you may hear or by the advice which you may receive.

After giving to these gentlemen the diploma with the seal of the Massachusetts College of Pharmacy, which sets forth their qualifications, and to which each one of them is entitled, the President of the College has invited me to say a few words. I understand that the pulpit and the bar have both in turn been called upon to speak to their predecessors; and, considering the position of the representatives of those professions who have undertaken the task, perhaps I ought to feel flattered by the invitation.

But, gentlemen, upon what shall I speak to you? I was not brought up to your profession, for by that name I choose to call it, hoping that you may, as you have the opportunity, elevate yourselves above the mere dealers in drugs and medicines, candies and fancy goods. There are matters, indeed, which may be, which ought to be, of interest to all of your profession and mine, and to the public at large as well, concerning which a few words, at this time, may not be inappropriate.

It is now some thirty years since I began the practice of medicine. About that time, I remember seeing an advertisement in a Boston newspaper:—"For sale. An Apothecary's stand and fixtures." And, among the inducements to purchase, was the statement that "it requires no previous acquaintance with the business." This was in the city of Boston, where we should find people boasting that things were done more by rule than elsewhere in the country. Thirty years ago, it would have been considered a difficult matter to find a carpenter, a cooper, a shoemaker, or any other mechanic in charge of a piece of work in his own trade, who had not passed through the regular stages of an apprenticeship for seven years, and journeyman. No man

* An Address before the Graduating Class of the Massachusetts College of Pharmacy, April 22, 1874.

would have been looked upon as a safe legal adviser who had not been trained in the whole mystery of the law; and he who had not at the least read his Bible, would have been considered a blind leader of the blind, had he undertaken to instruct us or our fathers in the mysteries of theology, or to explain the doctrines of sin and salvation, erroneous as the notions of either speaker or hearer might have been.

At the same time, he or she who professed to be born with curative powers, was sure of having a limited number of followers. In former days, a certain amount of mystery was supposed to be necessary in the treatment of disease. Education was not always considered a necessity; that is to say, what we call education to-day. Certain men were supposed, by the world at large, to have been born with the power to heal diseases, and others to have acquired that power by their prayers. Indeed, this belief has by no means departed; and there are enough of the weak-minded still left to encourage the hypocrite and blasphemer who prays for a living, and who advertises to the world that he is about to pray. Such weakness is more common in country communities, although in this city the medical practitioner not infrequently falls in with those, who believe that the seventh son of a seventh son has miraculous powers. There are still those who believe in incantations, and night after night, and week after week, the believers in spiritual manifestations consult the medium, whose whole work consists in prescribing the last new remedy for consumption, or in repeating the age of the grandmother, or the number of dead brothers, which the applicant has forgotten that he told her only ten minutes before.

Within a few years, another form of quackery has come into being, believed in by many, though not in any degree by those who practise it. You understand, of course, that I speak of that class of practitioners who pretend to believe that the more you reduce the strength of a medicine, the more you increase and develope its powers; and that a millionth of a grain has more power than a grain. The men who pretend to act upon this system—I do not know of one who does more than pretend—are aided in their sham by the progress made by chemists in analyzing drugs and discovering ultimate principles, which these fellows use under names which do not belong to them. The ignorant public does not and cannot know that the two per cent. of quinia extracted from "Jesuit's bark," or the ten per cent. of morphia extracted from the opium, is not an evidence of the progress of a so-called school of medical practice, which is not followed, even by those who profess it.

But there is progress; progress in your profession, progress in mine. And that progress will be more marked in the next fifty years than it has been in the last fifty. When it was first proposed that druggists should employ only those as assistants who were educated, or to be in part educated, outside of the particular shop in which they were employed, the proposition was laughed at by a large number of those who now believe it to be the true course. But how stands the record? Not a druggist, or pharmaceutist if you like the word better, of really good standing, but is anxious that his boys should have a better education than he had, and that they should require their successors to be still better educated. And if you, young gentlemen, are in earnest in acquiring knowledge, and determined to follow properly the course

which has been marked out for you here, and which really you have only begun upon, the day is not far distant when every drug store and its laboratory will be a successful field of scientific business, as some few now are; and the fancy goods store combined with the liquor saloon, as some few have been in years past, will take a lower position or be blotted out.

The same incredulity about its success was manifested when the Medical Department of Harvard University proposed to do away with the peculiar style of instruction, which had always been followed there and in all other schools about the country. The substitution of a more thorough course of medical education was pronounced impossible; students would not attend upon it; and this more surely because a verbal examination of ninety minutes at the end of the course was to be displaced by a written examination at the end of each year, and which might be protracted to twenty-seven hours in all. Those of us who were determined to succeed, and have succeeded to a certain extent, are in full accord with the gentlemen who stand at the head of your college.

It seems impossible that men were admitted to the degree of Doctor of Medicine, all over this country, with a single examination in nine branches, allowing ten minutes to each examination. That, however, was the fact. And we were warned that if we made the change proposed, the Medical School of Harvard University was destined to die, and its days were already numbered. But there were those who believed that an attempt should be made at progress, and that if death was to be the result, why, it could not be in a better cause.

What has been the result? The examinations have been spread over the three years. Twenty-seven hours have taken the place of the ninety minutes. The number of our students, in the four months' course of 1870–71, was three hundred and one. In the nine months of the following year this number was greatly reduced. Fifty-four only had adopted our new plan. In the year 1872–73 this number increased to ninety-three, and in the first term of this year we could count one hundred and eighteen students who were willing to undergo the severe examinations required for a degree. But how about expenses and income? for the former must have largely increased and the latter must have diminished. Why, gentlemen, the income of this year, which has but little more than *half* gone, has already been nearly a third more than it was in the whole of last year.

What has become of the other students? Why, they have preferred to go where examinations are easier; where the time is shorter; where the drill is less severe. We are satisfied that the change in the manner of study will be a success. The course which we have marked out is in parallel with the course which has been marked out for you, in taking you from the counter of the drug store and giving you extra work and study in the college laboratory. We have more branches of study, and our course is longer and harder. Let each and all of us do what lies in our power to make both colleges successful. The quack pretender, perhaps, can make money more rapidly and more abundantly than the educated pharmaceutist or physician. If pecuniary compensation is all that a man seeks, it is true that he can acquire it more easily in quackery and humbuggery than in fair and open work. That is a matter of taste. A thief or a forger can conquer

both in that game. That is a matter of taste also. I am aware that, in your profession, there are obstacles to be overcome which many others have not to contend with. It is true that the laws of the land have put taxes upon your sales perfectly unwarranted, and that many of these are so worded that even the most honest man cannot act under them without risk of punishment and disgrace. People complain of the cost of the medicines which you furnish, and yet do nothing in any way to aid you in getting rid of burdensome percentages laid upon the same article, over and over again. A stir in the moiety business within a few weeks past is, I trust, the beginning of a reformation by which those government sneak thieves will be got rid of, who spend their time in trying to trap honest pharmaceutists in breaking a law which, to appearance, was blindly worded purposely.

The duty of educating a doctor of medicine is not completed when he has pocketed his diploma. Indeed, he has then only learned how to learn. He may answer correctly all questions, but his practical education is to begin at that point, and will only be finished with his life or on his retirement from the profession. The duty of this college is to produce such a class of educated graduates as will be able to manufacture and inspect drugs for themselves. But your duty, gentlemen, was not completed when you passed the examination which entitled you to your diplomas. You may say that your course of study is practical throughout. No more so than ours. The older you grow in your work, the better it should be in every way, and science should go hand in hand with profit.

"The experienced doctor," so called, is, in many places, one who has grown gray in the practice of his profession without ever learning a fact which he did not read as an undergraduated student. And he who is often considered by the ignorant public to be the reliable druggist is no better. The object of both our schools is to teach the beginner how to teach himself afterwards.

There are relations between our professions which it is worth while to call attention to. It has been the case, sometimes, that the pharmaceutist and the physician have run in opposition to each other. This should not be. Every man has his preference for individual members of any trade and of any profession with which he has dealings. But you have no right to turn my patients into the hands of any other medical man who chooses to send his prescriptions to you. I have no right to require my patients to buy drugs at any other store than that which they are accustoned to deal at because he who keeps it is one who patronizes me. The physician who keeps a private remedy at a particular shop, which can be put up only on his order, and which no other druggist can understand, is a quack who has violated his word of honor. If you furnish drugs which I know to be inferior, because they cost you less than drugs of the first quality, that alters the case. Meanness is criminal wherever it exists, and should be punished.

Let us have a case or two from either side of the sheet. A medical man wrote a prescription for some morphia in pills. The size of the pills was excessive, and nothing upon the prescription indicated that there was any unusual call for what to most people would have been a fatally poisonous dose. There were no written directions, as there should be upon every prescription. The druggist very kindly said to the bearer of the prescription that he would prepare the medicine and

send it to the house. He tried for several hours to find the writer, and at last caught him at the dinner table, was kept waiting for a time, and was finally informed by the doctor that he never made mistakes, and that the prescription meant what it said. Of course, the druggist returned to his shop, and while engaged in preparing the pills, a messenger from the same patient came with another prescription. It seems that, without waiting to see his office patients, the doctor, on finding that he had made a blunder, too proud to acknowledge it and thank his informer for saving his patient, had hurried to the patient's bedside, changed his prescription as the result of new thought, received the thanks of the family for his attention, and repaid the apothecary with meanness for an act of kindness which prevented a coroner's jury.

I was knowing to the fact that a physician once advised some medicine to be thrown away because it did not come from A's shop, at which he traded, and no one in Boston knew so well as A how to prepare it. It had been purchased at B's shop. I also knew that B made all of that particular preparation which A sold. The bottle was refilled from the same fountain and pronounced to be all right. The first was a case of meanness. Meanness and ignorance combined formed the second, and both of them were deserving of punishment. I have known the same physician to change the form of a prescription, given on emergency by another who had been called in his place, simply that none but himself should have the credit of giving relief.

I care nothing who the physician may be, nor who the druggist. The physician has no right to interfere, except upon stronger ground than mere acquaintance or personal preference, or even family connection. Least of all has he the right to decry the druggist's medicine, unless he has good reason to believe it to be of inferior quality. You know, and the public should know, how much medicines vary in quality, and that the price and quality go together. It will be no credit to any of you if you sell medicine at retail for less money than your neighbor buys it for at wholesale. Take some of the common articles, which families keep on hand, and see the difference in cost: sugar of lead from fifteen to fifty cents a pound; sweet spirits of nitre from twenty-five to seventy cents; powdered rhubarb from twenty cents to two dollars; Hoffmann's anodyne from thirty cents to one dollar and seventy-five cents; arrowroot from ten to fifty cents; and other articles used solely in prescriptions at equally varying prices.

Another picture of the way in which meanness can be shown, and in which its dangers might be shown, is in the substitution of drugs. There are shops at which you can find anything you may ask for, even if it is not in the shop. Some years ago, having just risen from a sick bed, being taken with vertigo in the street, I stepped into a drug store, where I was not known, and took a seat. Not wishing to intrude without making payment, I asked for a chemical preparation; was told that they had it, and, after a long hunting about, a package was made up for me and paid for. When I got home, I tested it, and found it to be an entirely different article from that asked for, and sent it back, with my compliments to the one who put it up. I never had any notice of its having been received. A short time after this, I wrote a prescription for four pills, which were made and taken. It was thought best to renew them, by the number on the box. The

messenger, by mistake, took the box to that same shop. Eight pills were put up in place of four, and an active cathartic would have been taken in place of a narcotic, if the patient had not seen the box and its contents before the pill was put in some jelly for him to take.

Twice within a few weeks, I have had sugar-coated quinine pills, made by machinery, sent to patients in place of pills of quinine and hyoscyamus, as directed.

It is the duty of the physician to write his prescription plainly, and to put his directions for use upon the paper. It is the druggist's duty to put up the medicine precisely as directed, or not to put it up at all. If there be anything directed which he has not, the druggist has no right to substitute anything else without consultation with the prescriber; and this, whether the articles be inert or active, whether they be costly or cheap. You have no right to think that a sulphate or an acetate will answer the purpose as well as a muriate. You have no right to add more acid to a mixture than is directed, even if it be necessary to make a perfect solution; and even in so slight a matter as an excipient, you violate your duty if you make the simple substitution of one dry powder for another, or one mucilage for another. If the mixture be vile in its appearance, absurd in its composition, a liquid when the ignorant prescriber thought it would be dry, that is a blunder which it is not your business to correct. You might, in courtesy, notify him of the fact, but you have no right to change the mixture. You do not know, and cannot know, why a particular article is prescribed. This peculiar fault, peculiar impudence, if you please, is so common at one very popular drug store in this city, that for a couple of years past I have invariably cautioned patients not to have my prescriptions put up there.

Neither has the druggist the right to suggest to the purchaser that the dose prescribed is too large or too small. Within a very short time, a timid, nervous young lady, suffering from hæmorrhage from the lungs, and being miles from her physician, who had sent the prescription, accompanied with written directions for its use and his name appended to it, was frightened into long and dangerous neglect of herself by a druggist, who informed her that fluid extract of ergot, the best article known to-day for the prevention of hæmorrhage, is a slow poison and dangerous to use.

On the other hand, I contend that physicians have no right to prescribe unusually large doses of so-called poisons without intimating, in some way, upon the prescription that they are aware of what is written. Should I write for half a grain, or larger doses of morphia, I consider it my duty to write upon the prescription that "I have read over this prescription, and it is written as intended." Should I write for a medicine not often used, and about which there might be a mistake made, it is my duty to write down its other name also, if it has one, that the druggist may be sure of the article written for. Chloride of mercury should never be abbreviated, so that its identity with chloral hydrate may be questioned; and croton chloral should be so manifest upon the prescription that croton oil should not be substituted for it, when repose is intended as its effect.

With the best of care, every man is liable to make mistakes. Loss of sleep, or an attack of indigestion, either of these may make you or me commit an error. Under such circumstances, I have found it my

duty and pleasure to thank the druggist's boy for bringing me a prescription to be completed.

The wisest course for me is to keep a copy of every prescription that I write. Copying it makes me more likely to see an error. The proper course for you is to read over the prescription, and if it is to be copied, copy it then, before it is put up. The plan of delivering up the original to him who presents it is a bad plan. In case of doubt as to the author of an error, whether it be the writer or the compounder, the evidence of the original prescription should be in your hands for your protection. He who dispenses should have the writer's authority at hand for easy reference.

There is one matter of interest to all of us, and to the public as well, which I am not sorry to have an opportunity to allude to. I refer to the habit which some druggists have of prescribing. "Well," say you, "if a man calls on me to give a dose of medicine for a diarrhœa, or constipation, or cough, or sore throat in a child, why should I not give it to him? Why is not my prescription as good as that of any old nurse, or any other neighbor who has strayed in?" It is exactly as good, and no better. The sore throat, of which you know nothing, may be the result of insufficient dress, or of almond candy. The diarrhœa may be the beginning of a typhoid fever, or from want of flannel drawers. The constipation may be owing to too little food, or approaching disease of the brain. All of them may be simply symptoms of dyspepsia. One dyspepsia may require an acid, another an alkali; one needs a dose of physic, another requires food; one wants out-of-door air, and another a warm bed. One needs to have the patient stop his head work, and another would be benefitted by any change from his present style of life. Cough may have its cause in the head, in the throat, in the lungs, in the stomach. The very medicine which you give, without knowledge of the particular patient, and how to examine him, may be the means of aggravating the disease.

To say that this medicine is very simple, and, if it does no good, cannot do harm, is one of the most common of mistakes. If no other harm is done by it, there may be serious loss of time. But what is a simple remedy? You, perhaps, will say "tolu, ipecac, castor-oil, salts, rhubarb." Neither of these is so simple as morphia, or strychnia, or Prussic acid. The simplicity of an article or of its combinations has nothing to do with the usefulness or the hurtfulness of a medicine. If a man asks you for a compound cathartic pill, or for a dose of paregoric, that is all very well. I know of no reason for refusing him. If he asks you what the best cathartic for him is, or what would do his cough the most good, that is a very different matter. You know, and can know, nothing about it. If one man's meat is another's poison, and this is literally true, the parallel comparison will hold equally good concerning medicines.

The effect of the same medicine upon different individuals is very remarkable. And this cannot be wondered at by those who have seen the effect of different articles of food. Some of us know that so pleasant a fruit as the strawberry will produce difficult respiration in some who eat it. The clam and the oyster have similar effects upon others; and I have known the eating of poultry to do the same. Even the passing near enough to inhale the odor from a wheelbarrow of lobsters, I have seen followed by asthmatic breathing, and an eruption which

could not be distinguished from erysipelas. So an opiate stimulates one and depresses another.

I have a case on my books, which is a fair but ludicrous illustration of the value of such prescriptions as are "simple, and can't do any harm." I was called to see a little girl, who had been kept at school on Saturday till after her usual dinner hour. When she got home, vexed and tired, notwithstanding she had a slight headache, a slice of beefsteak would have relieved her. The headache led the mother to give a dose of castor-oil, and to offer gruel, which was refused. Sunday, no improvement, and tincture of rhubarb was taken. On Monday, no better; senna and salts. Tuesday, no better, and a dose of elixir pro. On Wednesday afternoon, I was called in and informed by Mrs. —— that, having no other medicine in the house, she had given the little girl an emetic, and it had brought up a great deal of bile, and she feared the child would never recover. The advice given was to feed the child, and let medicine alone. Yet these were all what are called simple medicines. With the exception of great weakness and loss of flesh, the child was in her usual health in twenty-four hours.

This case is a fair illustration of the value of prescriptions made at random, and, although you might not be foolish enough to go through so long a list, why should you not? If not competent to examine the patient, you are not competent to prescribe for him; and if it would be improper to continue prescribing ignorantly, so it would be improper to begin. Remember that many diseases have common symptoms at times, and it is only after days of suffering, in some cases, that the real nature of the disease is declared. The medicine which might be of service in a pleurisy or pneumonia, would be absolutely injurious to an overloaded stomach; still, the case is by no means uncommon in which chest pain, or irregular action of the heart originates in indigestion. The delirium and exhaustion, which seemed to foretell death, has, perhaps, originated in a roasted partridge. The apparent paralysis is not infrequently the effect of liquor. Not infrequently, on the other hand, men have worn the name of drunken sot, when an early autopsy showed that disease of the brain had existed for no little time. I knew one of your profession to be the means of sending a patient to a smallpox hospital, whose eruption was caused by the balsam of copaiba, which the druggist had prescribed. The simple medicine does harm, if you do not know how to use it; and, if in no other way, it may produce harm by taking the place of that which might have done service, and the use of which has been put off too long.

Another matter occurs to me, which is worth speaking of. Not that any one of your number is likely to err in this way, for no gentleman can act otherwise than as a gentleman; but you may have those in your employ to whom a word of caution may be useful. No one but the patient or the writer of the prescription knows for what purpose the prescription is written. A look at the patient, as if there were the shadow of knowledge in regard to the disease, is an insult. The slightest intimation of suspicion, that one knows for what disease a particular remedy is prescribed, entitles the seller of the drug to be kicked out of his own door. Yet I have known a druggist to insinuate to a modest girl, to whom copaiba was given for a cough, that he knew for what other disease it was used; and to another, that ergot was not always given to *check* hæmorrhage.

And still another word. The drug store is not the proper place for a news room. It is no place for unemployed physicians to gather in and talk over the political affairs of the day. It is no place for medical or other loafers behind the druggist's counter. No one should be allowed there except upon business. No one should be allowed to speak with him who is weighing out and measuring medicines; and if your visitors do not know this, it would be as well to say it in unmistakable language, or, which would be better, perhaps, to have the compounder of medicines closeted by himself alone.

And now, gentlemen, having said what has occurred to me during the short time which I have been able to spare for the purpose, if I have given you anything which you consider of any value, I shall feel very well satisfied. If these matters appear to you to be of comparatively little consequence now, the day is coming when some of you will appreciate them. It is impossible that science can be held back, and in any business where a head is wanted, as well as a hand, there must be progress. See to it that your labor does not retard it.

LARGE CALCULUS.—The following account of a calculus of gigantic magnitude is copied by a Mr. Gouge, from the preface to an old book of sermons by the Rev. Nicholas Byfield, of Isleworth, who lived in the time of Queen Elizabeth and James I. The book was published, after his death, by the editor, Mr. Gouge, to whom we are indebted for the details of this remarkable case, and is dated 1623.

"It appears that he carried a torturing stone in his bladder fifteen years together and upward. I have heard it credibly reported that, fifteen years before his death, he was by a skilfull chirurgion searched; and that, upon that search, there was a stone found to bee in his bladder; whereupon hee used such meanes as were prescribed to him for his case, and found such help thereby, as he thought; that either the chirurgeon which searcht him was deceived; or that the means which he used, had dissolved the stone. But time which manifesteth all things, shewed, that neither his chirurgeon was deceived, nor yet his stone dissolved; for, it continued to growe bigger and bigger, till at length it came to bee of an incredible greatness. After his death, hee was opened, and the stone taken out; and being weighed, found to be 33 *ounces and more in weight;* and in measure about the edge, *fifteen inches and a halfe;* about the length, *above* 13 *inches;* about the breadth, *almost thirteen inches;* it was of a solid substance; to look upon, like a flint. There are many eie-witnesses besides who can iustifie the truth hereof. A wonderfull work of God it was, that he should bee able to carry such a stone in his bladder, and withall to do the things which he did."—*British Medical Journal.*

CASE OF DOUBLE DIAPHRAGMATIC RUPTURE AND HERNIA.—Dr. John M. Woodworth reports a case of double rupture of the diaphragm to the left of the œsophageal opening. At the autopsy, it was revealed that portions of both the large and small intestine, as well as of the omentum, had been projected into the pleural cavity, and that strangulation of the hernia, with perforation of the intestine, had resulted. As to the previous history, it was ascertained that the man, while engaged in loading ship ten days previous to his death, had attempted to shove some heavy planks up a steep incline, bearing their full weight against his abdomen. The planks were so heavy that sometimes he required assistance, and the gangway being narrow, another sailor endeavored to assist him by pushing from behind. Whilst thus engaged, he felt a sudden snap inside, and, feeling faint, had to suspend work. In a few days, he apparently recovered; but, later, severe abdominal symptoms set in, and death followed.—*New York Medical Journal.*

Progress in Medicine.

REPORT ON OPHTHAMOLOGY.

By O. F. Wadsworth, MD.

The Crossing of Nerve Fibres in the Chiasma.

The theory of the semi-decussation of the optic nerves in the chiasma has, since the time of Wollaston, been generally accepted. With very few exceptions, it explained satisfactorily the alterations in the shape of the field of vision observed in cerebral disease, and particularly did it offer a ready solution (in the affection of one optic tract) of the not infrequent cases of stationary, sharply defined loss of function in the right or left halves of the retinæ. The latter seemed, indeed, hardly understandable on any other supposition. Anatomical proof did not seem to be wanting.

It would appear now as if this theory must be abandoned. Biesiadecki, in 1861 (*Sitzungsberichte der Math.-naturwiss. Classe.* Wien.) convinced himself, by anatomical investigation, that total crossing of the nerve fibres in the chiasma occurred, but his views found no acceptance. Since then, however, testimony in their favor has been accumulating. Paulowski, in 1869, whose work was only published in Russian, arrived at similar results. Gnelden (*Archiv für Psychiatrie,* 1870), by experiments on young rabbits, removing a portion of the corpora quadrigemina and thalamus optici on one side, or destroying one retina, found atrophy of one optic tract and the opposite optic nerve, and, with the microscope, demonstrated complete crossing of fibres in the chiasma. Brown-Séquard (*Archives de Physiologie,* March, 1872; *Archives of Scientific and Practical Medicine,* ii., 1873; Journal, November 7, 1872), basing on pathological observations and experiments, denied the truth of Wollaston's theory, but his view would accord still less with total than with semi-decussation. Knoll (*Centralblatt,* 17, 1872; Journal, November, 7, 1872) found reflex contraction of the pupil wanting on one side when the opposite tract was divided; but only inferred total crossing of special fibres which transmit the stimulus from the optic to the oculo-motorius. Finally, Mandelstamm* and Michel (*Graefe's Archiv,* xix. 2), the one in Vienna, the other in Leipsic, have confirmed Biesiadecki's statement by anatomical researches, and find that all the fibres of the optic nerves cross at the chiasma. The independence of their observations, as well as the fact that they employed chiefly different methods, makes the generally very exact agreement of their detailed results all the more convincing. There appear to be, however, certain discrepancies on a few points which, perhaps unavoidable in the working out of a subject so difficult, and partly to be explained by the difference in the methods employed, may yet leave a loophole for doubt for the advocates of semi-decussation. Mandelstamm hardened the human chiasma, and, after dissolving the connective tissue with concentrated solution of potash, picked out the different bundles of nerve fibres with fine forceps. A bundle of nerve fibres at the inner surface of the optic nerve curves downward around the nerve and crosses on the under surface

* For a translation of a part of Mandelstamm's article, by Dr. H. W. Williams, see Journal, March 26, 1874.

of the chiasma, while the outermost of the fibres coming from the tractus to the superior surface of the chiasma curve down around its outer angle and also cross on its lower surface. With this exception, the bundles cross without special change of level; the innermost fibres of the nerve running along the anterior angle of the chiasma to reach the opposite tract, the outermost along the outer to curve and cross at the posterior angle. The more anterior the fibres are situated, the sooner do they cross. Horizontal sections of the hardened chiasma, he regards as suited to assist the judgment arrived at by picking out the fibres, but as not sufficient of themselves to decide the question. Experiments made on rabbits, after the manner of Gnelden, gave him like results, i. e., atrophy of nerve and tract of opposite sides.

Michel examined the chiasma in fishes, amphibia, birds, mammals and man by sections, chiefly horizontal, but, also, in other directions. Except in fishes, where the nerves simply overlie each other, he found that in the total crossing of the fibres the nerve bundles interlaced so as to form a sort of basket-work, the size of the interlacing bundles varying in different species, and the most posteriorly situated being smaller than the more anterior in the same chiasma. In man were some layers, also, which crossed without interlacing. The course of the fibres in their passage from one side to the other through the chiasma agrees with the description given by Mandelstamm. In the chiasma of a dog, with congenital malformation of one eye and atrophy of corresponding and opposite tract, the crossing of the atrophied nerve bundles could be plainly traced. The few bundles which Mandelstamm described as curving from upper to lower surface of the chiasma, Michel makes no mention of, but they would very likely escape observation by the method he employed.

Both observers deny the existence of an anterior commissure; and both, while describing a narrow layer of fibres resembling a posterior commissure, state that this layer is separated from the chiasma by a layer of grey substance.

Mandelstamm does not appear to have observed the interlacement of nerve bundles which Michel prominently describes and figures, yet, if the latter is correct, it is difficult to see how they could have escaped notice in the process of picking out and following the various nerve bundles. Mandelstamm, again, states that in the rabbit the one nerve crosses above the other, while Michel found in the rabbit, as in various other mammals, that the bundles of the two nerves formed, in crossing, a regular, delicate basket-work.

The acceptation of a total crossing, Mendelstamm considers suited to fill any gaps at present existing in the determination of the locality of an affection of the brain, and in remarkable accordance with all hitherto observed pathological changes. Without a very great change in our present knowledge of the origin and distribution of the optic nerve fibres, however, this acceptation could never explain the cases of sharply-defined, symmetrical, lateral hemiopia (loss of function in the right or left halves of both retinæ). The less frequent cases of loss of function in the outer sides of both retinæ would, indeed, be more easily explained, since there need only be supposed a lesion affecting one of the outer angles of the chiasma, instead of, as hitherto believed, an affection of both the outer angles, or of the outer side of both tracts or nerves. But such defects of the field of vision, as well as all others,

except the lateral hemiopias, are never stationary, sharply defined and symmetrical. The report of the single case examined *post mortem*, which Mandelstamm has been able to adduce to show that a tumor behind the chiasma produces a loss of function in the outer side of both retinæ, is too defective in important particulars bearing on this point to be of any special value, while a case reported by Knapp (*Archives of Scientific and Practical Medicine*, No. 4, 1873), in which stiff, atheromatous arteries were in contact with both outer sides of chiasma and optic nerves, furnishes *at least* as strong an argument for the old view.

Michel admits the difficulties in the way of explaining the sharply defined lateral hemiopias with total crossing of fibres, and does not attempt any solution of the problem. He describes a pouch, covering the upper surface of the chiasma and separated from it by a thin layer of grey matter, which communicates with the third ventricle, and points the importance this pouch may have in the production of loss of function in more or less of the nerve fibres when there is a collection of fluid in the ventricles.

The practical importance of the views above given is sufficient to stimulate inquiry, and it cannot be doubted they will soon be confirmed or denied by other workers in the same field.

Inflammation of the Cornea.

Eberth (*Centralblatt*, xix. and xxxii., 1873), in the former of his papers, sought to prove, from the results of experiments, that the severity of inflammatory processes in the cornea, after a trauma, does not depend so much on the severity of the wound itself as on the number of bacteria carried into the cornea by the wounding body. He found, also, that the changes produced when a silken thread was left in the cornea were the same as when the cornea was inoculated with the bacteria from diphtheria of the throat, and deduced identity of the disease. From another series of experiments, he concludes that the presence of similar organisms forms an essential part of the keratitis following paralysis or section of the fifth nerve. After section of this nerve in rabbits, there occurs slight exophthalmos, diminished sensibility of cornea and less frequent winking; the drying of the exposed surface of the uncovered cornea causes a change in the epithelium and allows the organisms floating in the air to gain a foothold. The keratitis which follows does not differ, to the eye, from true diphtheritis of the cornea, and the microscope shows, as in diphtheritis, bacteria, scattered and in groups, in the affected tissues. The differences in degree and rapidity with which the changes in the cornea occur depend on the rapidity and extent of drying of the surface, on the presence or absence of slight injuries causing abrasion of the epithelium, and on the amount of micrococci in the air.

The results of investigations by Stromeyer, as to the causes of hypopion-keratitis (*Graefe's Archiv*, xix., 2), point also to the influence of bacteria. Bits of metal, carefully cleaned, and introduced into the cornea so as to allow the wound to readily close behind them, excited but little inflammation, and that in proportion to the readiness with which oxydation from contact with the corneal fluids took place. Septic material, containing bacteria, leptothrix buccalis and decaying muscle, placed between the lamellæ of the cornea excited rapid and

extensive keratitis, with extension of the inflammation to the scleral border, ciliary body and iris, and hypopion. The same series of changes sometimes occurred when perfectly fresh muscle substance was employed; sometimes the inflammatory reaction was slight. Examination showed that, in the former instances, the bits of muscle had become rapidly infiltrated with bacteria, while, in the latter, closure of the external wound had prevented their introduction. In one case, where a bit of fresh muscle was introduced into the anterior chamber, its presence was perfectly tolerated, and, at the end of three weeks, it was in great part absorbed. The cases of keratitis in persons affected with blenorrhœa of the lachrymal sac present strong points of resemblance to keratitis produced by septic inoculation. The source of the pus forming the hypopion is that portion of the ciliary body situated in the angle of the anterior chamber and the circulus venosus of Leber; very probably, also, in many cases, the iris takes part in its production. The anatomical appearances found negative decidedly the opinion that hypopion occurs by sinking of pus corpuscles in the posterior lamellæ of the cornea behind the membrane of Descemet, or that they reach the anterior chamber by direct passage backward from the seat of ulceration.

Boettcher (*Virchow's Archiv*, 58, 3), believing that the emigration of white blood-corpuscles into the cornea, which Cohnheim and others have described in traumatic keratitis, was due to the great amount of irritation excited, sought to confine the destruction of tissue to as small and central a spot as possible. When this was effected, he found no evidence of emigration of white corpuscles, and while the corneal corpuscles were destroyed in the immediate vicinity of the eschar formed, those in the peripheral parts showed no notable change. In the injured part, fissures appear in the basis substance, containing fine granules, which gradually enlarge and become pus corpuscles. The pus cells, therefore, originate on the spot by free cell-formation from protoplasma granules brought to the seat of injury in the increased amount of nutritive fluid attracted by the irritation.

The experiments of Sinitzin (Journal, November 7, 1872), which appeared to demonstrate that keratitis following section of the fifth nerve is averted by removal of the upper cervical ganglion of the sympathetic, have been repeated by Eckhard (*Centralblatt*, 35, 1873) with a contrary result. In only one case did the characteristic changes in the eye fail to follow division of the fifth after removal of the cervical ganglion. In the solitary exception, it was found that the median fibres of the trigeminus had escaped division, though complete anæsthesia of the cornea had been produced.

Reich, also (*Graefe's Archiv*, xix., 3), in the course of experiments to determine the nerves presiding over the secretion of tears, found that extirpation of the upper cervical ganglion of the sympathetic did not prevent neuro-paralytic keratitis after division of the trigeminus.

Von Tannhofer (*Central-Zeitung*, 46, 1873) describes the nerves of the cornea as running in lymph-canals lined with endothelium, and states that, in keratitis, the white blood-corpuscles wander along these canals, often by their number completely hiding the nerves from sight. He believes, also, that he has been able to trace the anatomical continuity of the fine terminations of the nerves with corneal corpuscles.

[To be concluded.]

Bibliographical Notices.

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the Fiscal Year 1873. By JOHN M. WOODWORTH, M.D. Washington: Government Printing Office. 1873. Pp. 145.

THIS is an elaborate document, and one well worthy of an extended review. It is Dr. Woodworth's "second annual report," and it evinces not only a thorough competency for the work he has to do as "Supervising Surgeon of the Marine Hospital Service of the United States," but also a genuine, painstaking and careful examination of the subjects brought forward, forming an admirable and valuable *exposé* of the details of the important department referred to. Any analysis fully setting forth the merits of the Report would be impossible within the limits assigned us. A reference to its main topics will, however, serve to show its value and the large amount of labor required of the Supervisor.

In a circular accompanying the Report, Dr. Woodworth shows, in a few sentences, both the importance and the extent of the Marine Hospital Service, and enumerates the duties attaching to his post. He says:—"For the purpose of illustration, rather than of comparison, the Marine Hospital Service of the United States may be said to be analogous in its functions to the Medical Departments of the Army and the Navy, in that it is the medium through which medical and surgical treatment is furnished to the sick and disabled of a large body of men. Its scope, however, is wider than that of those Departments; as well in the variety of duties imposed by law upon the chief of the service, as in the much larger number of men cared for through it." The mere figures given by the reporter at once show the truth of these assertions. Thus there are, "in round numbers," about 113,000 men "constituting the American merchant marine, comprising the officers and crews of 26,852 vessels, of 3,721,425 tons burthen." A portion of the act passed June 29, 1870, reorganizing the Marine Hospital Service, prescribes a list of duties for the Supervisor, which, as he truly remarks, "in addition to those which usually appertain to a medical department, include, also, to a considerable extent, the functions of the paymaster's, commissary's and quartermaster's departments." *(Loc. cit.)* Here is a portion of the act, or law, referred to; it speaks for itself, and it asks a great deal: "the Supervising Surgeon, 'under the direction of the Secretary' [of the Treasury], should not only secure suitable medical attendance for the sick and disabled, inspect hospitals—their construction, condition, administration, &c.—and, in kindred ways, exercise a strictly professional knowledge and authority, but he should aim to secure a diligent collection of hospital dues [assessed upon the individual members of the merchant marine, monthly—thus forming a 'marine hospital fund'], and the equitable enforcement of the act with regard thereto; he should become familiar with prices-current of medical, subsistence and other stores, and with the relative conditions and cost of maintenance, &c., throughout the country, in order to audit accounts, revise requisitions, and determine the necessary amount and character of relief to be furnished at the various ports—in short, he should, literally, 'supervise all matters connected with the marine-hospital service, and with the disbursement of the fund.'" Might not the Supervisor, after reading the above, reasonably exclaim—"*Ohe! jam satis?*"

Now, what has Dr. Woodworth presented in the one hundred and forty-five pages of his Report? In the report proper, he has detailed the doings of the service from July, 1872, to June 30, 1873; the progress of the re-organization of the service; regulations of the United States Marine Hospital service (1873); existing laws—prospective legislation; tax-paying seamen in quarantine hospitals; medical inspection of seamen before shipping; United States Marine Hospital buildings; proposed new hospitals; statistics. Under the latter head are comprised the fiscal and local statements, a "table of

diseases and injuries treated in hospital during the fiscal year 1873," and a "mortality table, with causes." After this, as an appendix, we have a collection of truly valuable papers—on hospitals and hospital construction; on the natural history of yellow fever in the United States; report of a case of double diaphragmatic rupture and hernia; urethral stricture; the sailor and the service at the port of New York; river boatmen of the lower Mississippi. To say that each of these short essays is full of interest and valuable information, is giving them only a minimum of praise. The paper on hospitals, by Dr. Woodworth, which he modestly speaks of as a mere "outline of the subject," is well worthy of perusal, and advocates "the pavilion hospital plan," which, as he remarks, "inaugurates a new era in hospital construction, at least, so far as the marine-hospital service is concerned." Valuable illustrations of hospital-plans accompany this paper.

The next paper—that upon yellow fever—is by J. M. Toner, M.D., and is prefaced by a "chart of yellow fever in the United States, giving elevations above sea-level of localities where yellow fever has appeared since A.D. 1668." In addition to the preparation of this chart, Dr. Toner has given a large number of meteorological and locality tables. These occupy several pages, and must have required a great deal of patient labor in their construction. This paper closes with an account of "the yellow fever epidemic of 1873," whose ravages in many southern and western localities—particularly in Shreveport, La.—have been so appalling. The statements from Shreveport had not been obtained at the time Dr. Toner made up his report, in consequence of the illness of the surgeon in charge.

The paper upon the case of double diaphragmatic rupture and hernia is by Thomas T. Minor, M.D., and is accompanied by a photographic illustration. The account is exceedingly interesting. Reference is made to Dr. Bowditch's treatise on diaphragmatic hernia, upon the point of recognition of these rare cases during life—Dr. B., at the time of his writing, knowing only two instances of such recognition, one by Mr. William Lawrence, of London, the other by himself, at the Massachusetts General Hospital. Dr. Minor expresses the opinion that "there appears to be, aside from want of familiarity, owing to the infrequent occurrence of this form of hernia, no reason why the diagnosis may not be made with tolerable accuracy in any case where the attention is awakened, as by the history of a previous severe injury of the trunk." He alludes, in this connection, to the frequency with which sailors meet with such injuries, and urges the necessity of careful scrutiny of the chest and abdomen by marine-hospital surgeons in such cases; believing that many instances of herniæ of the sort under consideration may be overlooked.

A short report upon stricture of the urethra, by C. H. Ellinwood, M.D., Surgeon U. S. Marine Hospital Service, San Francisco, Cal., is next in order, and is accompanied with notes of cases by Dr. Ellinwood and Dr. O. L. Crampton, Surgeon in charge of United States Marine Hospital, Mobile, Ala. The "divulsion" method of Gouley finds favor with Dr. Ellinwood. He refers to the well-known fact that many cases of stricture in seamen are aggravated by delay in securing proper treatment, from their own fault, most frequently; and also mentions the injury inflicted by "the introduction of improper instruments, mostly in the hands of the seaman himself"—a fertile source of urinary fistulæ.

The next paper is entitled "The Sailor and the Service at the Port of New York," and is by Heber Smith, M.D., Surgeon United States Marine Hospital Service, New York city. The abuses and cruel impositions and robberies practised upon the sailor when he comes ashore, are forcibly set forth by Dr. Smith, who fully realizes the duties of surgeons holding the important relation to seamen which attaches to the marine hospital service. We commend this paper to the careful consideration of legislators, and of all others who can in any way aid in abating the abominable abuses practised upon sailors by boarding-house keepers and their satellites. In replying to his own query, "what is the remedy for this state of affairs?", Dr. Smith finally concludes that "the general government only can cope with the

difficulty." We trust the faithful exposure, by Dr. Smith, of the hardships and injustice inflicted upon the sailor, not only in the "port of New York," but everywhere, more or less, will engage the best attention and earnest intervention of those in authority.

The last paper—somewhat analogous to the previous one—occupies only three pages of the pamphlet, but they well deserve careful attention. The title is, "Report on the River Boatmen of the Lower Mississippi"; the author is Orsamus Smith, M.D., Surgeon United States Marine Hospital Service, New Orleans, La. The report is "an investigation into the mode of life, food, shelter, and other conditions affecting the health of seamen on river-boats." Referring to the cotton-boats, the reporter says:—"In view of their construction and of the hardships their crews endure from exposure, through want of accommodation, together with the unusually severe winters which have been experienced in the south for the past two seasons, it is no wonder that such diseases as smallpox, rheumatism, and pulmonary complaints are very prevalent. To these causes of disease should be added the immense growth of rank vegetation in these low, swampy regions, which, when decaying in the late summer and fall seasons, during low water, is a very fruitful source of a large percentage of every form of malarial fevers."

A good Index, with a "List of Illustrations," closes this excellent pamphlet. W. W. M.

Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., and William Pepper, M.D. Fifth Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1874.

The fourth edition of this well-known and excellent work has been for some time exhausted, and the demand for a fifth edition so soon shows the high estimation in which it is held by the profession. Any extended notice, at this time, of a book possessing so well-merited a reputation would be superfluous. In this edition, there are to be found several changes. Some important articles, those on Diseases of the Heart, on Progressive Muscular Sclerosis, on the Treatment of Scarlet Fever and of Measles, on Variola and the Vaccine Disease, have been almost entirely re-written. Other subjects, of which no mention was made in previous editions, have been introduced. Such are: articles on Pulmonary Emphysema, Pneumothorax, Affections of the Tonsils, Retro-pharyngeal Abscess, Malarial Fevers and Scrofula. Notwithstanding in many parts there has been much condensation of the text, the large amount of new matter added has caused an increase of ninety pages.

The aims of the authors to insure a practical character to the work have been faithfully carried out, and, without neglecting other questions, a very large space is devoted to the considerations of treatment, which are clearly stated, with much attention to detailed instructions.

To the chapter devoted to entero-colitis is added a table showing the monthly mortality for the last seven years from cholera infantum, dysentery and diarrhœa during the first five years of life, compared with the total monthly mortality from other causes, and the mean monthly temperature, prepared with great care, showing very strikingly how great is the effect of season and how great a factor the elevated temperature of summer is in the production of this fatal intestinal disease; considerable space is also devoted to showing how strongly allied it is in its nature and pathology to the camp diarrhœa described by Dr. Woodward, of the U. S. Army. In this edition, the term cholera infantum is restricted to that class of cases having a truly choleraic character, and, if such definition were adopted generally by American practitioners, the rates of mortality from this disease would not be so large as they now appear in statistics. Under the head of diseases of the digestive organs, is a very excellent article upon diseases of the cæcum and of the appendix vermiformis, a subject not usually specially described in works upon children's diseases.

Highly valuable and instructive are the authors' views, given at length, to which they have arrived by long experience, upon several of the most impor-

tant articles in the materia medica, viz.: calomel, antimony, opium and alcoholic stimulants. While the two former they have nearly discarded, in the treatment of very young children, as being, in the majority of cases, useless if not productive of much harm, their convictions of the great value of the two latter, when properly and understandingly administered, have been only strengthened by time.

This work, though not destined to supersede foreign treatises upon children's diseases, as those of West, Vogel and Steiner, is well worthy to be placed by their side, and, at the same time that it shows the authors to be conversant with the advanced ideas of pathology and therapeutics of foreign schools of medicine, it offers itself as an exponent of the best American thought and practice.

The admirable arrangement adapts it equally well as a book of reference for the busy practitioner and as a text book for the student.

L'Hérédité. Par TH. RIBOT. Paris. 1873. Pp. 550. 8vo.

THIS treatise of M. Ribot deals with mental heredity especially. The four parts treat of its phenomena, laws, causes and consequences. In the first, the author shows the heredity of the instincts, sensorial faculties, memory, imagination, intelligence, passions, will, national character, and morbid psychological conditions. His tables of illustration are profuse and convincing, and concern, in many cases, historical personages, being taken from Galton's work on Hereditary Genius, from Lucas, Despine, Darwin, Spencer and many others.

From this mass of facts, he educes the general law of mental heredity in three forms: direct, as from parents to children; atavism, as from grandparents or remoter ancestors, skipping one or more generations; and indirect or collateral. This law is subject to so many exceptions, however, as to almost warrant a belief in what Lucas termed the law of individualism *(innéité)*. He concludes that there is no such law, since the exceptions are always partial. The mental characteristics of the species are transmitted, of course, and the deviations from family traits of mind are, he thinks, accidental, due to transient mental states of the parents, to intra-uterine influences, &c. Many seeming exceptions are metamorphoses of heredity, whereby mental traits combine like two chemicals, forming a compound different from either. We see this in transmitted insanity, in which not the precise form of mental disease is inherited, but some morbid equivalent. Heredity, then, is the law, but a law which, from a complexity of causes, can never completely realize its ideal.

The consideration of the causes of mental heredity involves a critical examination of the physical and mental elements in man. As Maudsley, Carpenter and others have done, our author first shows that every mental operation may be performed unconsciously. He next, after Spencer, shows how every conscious mental act may be resolved into a nervous shock, which, seen from below, is a physical, and, from above, is a mental phenomenon. Hence result two contemporary hypotheses, best known as materialistic and idealistic, neither being provable, but the former to be preferred, since it starts with the known and tangible, and leads up to the ideal and abstract. He therefore argues that every psychological has a corresponding physiological state, and that mental heredity is, therefore, dependent on physical heredity. To explain this, he offers Darwin's theory of *pangenesis*, which implies that in the whole organism each atom or unit composing it reproduces itself. Each cell emits little germs, which ultimately develope in the body of parent or child or grandchild into similar cells, with similar organic tendencies. Heredity is, therefore, in fact, *identity*, partial, of course, and subject to variations under the laws of evolution, which are unfolded in the fourth part, in which the consequences are treated of.

The doctrine of heredity is essential to the evolution hypothesis, since by an accumulation of little differences, it becomes a means of selection. It may, however, favor the degeneracy as well as the amelioration of any race,

unless the surroundings are favorable to improvement. In the long run, and in the human species at large, it undoubtedly leads to progress. It favors improved physical conditions and an hereditary accumulation of advanced ideas and forms of thought, of nobler sentiments and a higher moral standard. Whether man can ever use and direct this powerful agent for the betterment of his species, is a problem for the future. Its importance in a pathological view is apparent, and if the same zeal was shown for the improvement of a human race or a family as for that of some valuable breed of cattle, similar results, no doubt, would follow. T. W. F.

BOOKS AND PAMPHLETS RECEIVED.

Forty-eighth Annual Report of the Massachusetts Charitable Eye and Ear Infirmary. 1874.

Annual Report of State Lunatic Asylum, Utica, N. Y., for 1873. Albany. 1874. Pp. 60.

A Manual of Toxicology, including the consideration of the Nature, Properties, Effects and Means of Detection of Poisons. By John J. Reese, M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 507. (For sale by A. Williams & Co.)

Ligation of Arteries. By Dr. L. H. Farabeuf. Translated by John D. Jackson, M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 157. (For sale by A. Williams & Co.)

Lectures on the Diseases of Infancy and Childhood. By Charles West, M.D. Fifth American from the sixth revised and enlarged English Edition. Philadelphia: Henry C. Lea. 1874. Pp. 678.

A Treatise on Pharmacy. By Edward Parrish. Fourth Edition, enlarged and thoroughly revised, by Thos. S. Wiegand. Philadelphia: Henry C. Lea. 1874. Pp. 977. (For sale by A. Williams & Co.)

The Treatment of Syphilitic Diseases by the Mercurial Vapor Bath. By Langston Parker, F.R.C.S.L. Compiled from the fifth London Edition, by John W. Foye, M.D. Boston: A. Williams & Co. 1874. Pp. 92.

Extract from a Report on the History of the Surgery of Tennessee. By Wm. T. Briggs, M.D. (From the *Nashville Journal of Medicine and Surgery.)* 1874. Pp. 98.

Therapeutics, Materia Medica and Toxicology. By H. C. Wood, Jr., M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 578. (For sale by A. Williams & Co.)

Retention of Urine relieved by Aspiration.—Dr. Joseph Bell, in a paper read before the Medico-Chirurgical Society of Edinburgh, expresses the opinion that the aspirator affords an easy, safe and reliable means of emptying the bladder in cases of urgent retention of urine, where catheterization has failed. He reports a case in which this operation was resorted to in a feeble old man, who was admitted to the hospital in a semi-comatose state, with eyelids swollen and limbs œdematous. He had a weak, rapid pulse and a harassing cough, along with the physical signs of bronchitis and emphysema. His scrotum and penis were enormously swollen, and of a dark-red color. There were several sinuses in the scrotum and perineum. He had passed no urine by the urethra for three days, but a few drops had dribbled away by the sinuses in the perineum. His bladder could be felt distended nearly up to the umbilicus. It was not deemed prudent, considering the unpromising condition of the patient, to perform perineal section, and tapping *per rectum* would have been difficult, on account of the enlargement of the prostate. The needle of Dieulafoy's aspirator was therefore driven into the bladder about one inch and a half above the symphysis pubis, upon the median line, and by it twenty ounces of fœtid, turbid urine drawn off with ease. No trace of the puncture was visible after the first few days, nor did it occasion the slightest inconvenience.—*Edinburgh Medical Journal*, April, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, May 7, 1874.

We look forward with much interest to the experiment of Hospital Sunday. It is of great importance that the first trial should be a success, or, if it is not, that the cause of the failure should be so evident that it may be removed on future occasions. The idea, certainly, is good in the abstract. Our hospitals, as a rule, are in narrow circumstances; so much so, indeed, that the proceeds of the collections will be but as a drop in the bucket. Most of our hospitals are dependent on the charity of the rich; it is by this favored class that wards are built and endowed, instruments purchased, and beds maintained. This is as it should be, but we think there is something pleasing in the idea of once a year giving the poor an opportunity to repay in some measure the benefits they have received, by contributing their mite together with their more fortunate neighbors. This will give them, and very justly, a feeling of ownership and a personal interest in institutions to which accident may, at almost any time, consign them, and will tend to do away with that dread of the hospital which is still too common. Moreover, this charity will take the form in which it is most acceptable; that of a free gift. Half the benefits of princely bequests are often lost by conditions which in some cases may even make their receipt a burden. Here the form of the gift is good, but we are sorry to learn that abroad much trouble has arisen in dividing it, and that the result has been by no means satisfactory. The *London Medical Times and Gazette*, April 11, 1874, goes so far as to speak as follows:—

"Whilst giving the originators of the new project every credit for their motives in instituting a Hospital Sunday or Saturday collection, we think that in the long run it will be found the new system is open to many objections which did not exist under the old arrangement, and we are of opinion that the interests of charity in this particular direction would by no means suffer if "Hospital Sundays" and "Hospital Saturdays" were done away with, so far as the metropolis itself is concerned, and the funds of the various hospitals of London were left to be recruited in the manner which has been adopted for so many years past."

We are inclined to hope for better things, though we are aware that serious difficulties may arise. The clergymen composing the committee that has the matter in charge are doubtless better fitted by their charity and eloquence to raise a large sum than by their knowledge of medical matters to divide it when raised. We hope they will bear in

mind that corporations resemble individuals, and that those who are least deserving are precisely the ones to press their claims with the greatest effrontery. The task of the committee is a difficult and delicate one, especially for those who cannot know the relative merits of the numerous institutions that will appear as claimants. We would suggest to the committee that it might not only lighten its labors, but further the end for which it exists, by requesting the Suffolk District branch of the Massachusetts Medical Society to appoint a committee of conference to advise as to the proper distribution of the money. It is not too late to adopt this course, even for the present year, and thus avert the only danger that seriously threatens the success of what should be a most popular charity.

CLERGYMEN'S SORE THROAT.—In an address upon Clerical Elocution, delivered some years since, Edward S. Gould, Esq., made some ingenious and valuable suggestions as to the injurious effects upon the voice produced by the vicious habit of monotonous delivery to which clergymen are addicted. These ideas we do not remember to have seen elsewhere in print, and as they appear to be based upon correct physiological principles, we would recommend them to the consideration of those medical men who are inclined to consider a European tour as the sovereign panacea for affections of the throat in clergymen:—

"You are all aware, from your own observation, that a man can talk through a whole evening with less fatigue to his vocal organs than would ensue from his reading half an hour. Why is this? The human voice is like a stringed instrument of music. It has a certain number—more or less in individual cases—of tones, or notes, and, in common conversation, almost every one of these notes is brought into use; and, when used properly, each is kept in order, and even improved, by use. But if two or three only are used, as in monotonous reading, they become fatigued and permanently injured by being used too much; while the others become rusty, weak, discordant, from not being used at all. In other words, and to drop the metaphor, the diseases of the throat, so common among the clergy, are easily and directly traced to their habit of monotonous delivery."

As every one knows, chemical nomenclature has gone into the line of the acrobat, and in the last few years somersaulted most actively. As no one seems to know, the United States Pharmacopœia has, to a certain extent, followed these changes. It is now no longer correct to write magnesiæ sulphas, or sodæ sulphas, or potassæ nitras. The name of the metal itself is employed, not that of its oxide. Thus, the substances mentioned should be respectively called magnes*ii* sulphas, sod*ii* sulphas, potass*ii* sulphas.—*Philadelphia Medical Times.*

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, April 22 and 25, 1874.)

OPERATIONS were performed in the following cases :—Stricture of the Urethra, Supra-orbital Cyst, Sinuses of Back, Cellulitis of Forearm, Hæmorrhoids, Necrosis of Femur, Hæmorrhoids, Supra-orbital Cyst, Spermato-

cele, Supra-orbital Cyst. During the week, Cancer of the Breast, Phimosis, Double Talipes Varus, Elongated Prepuce, Railroad Injury of Foot and Ankle-joint, Tumor of both Upper Jaws, Hydrocele.

Stricture of Urethra.—Case reported in the JOURNAL for April 30th; under ether, another attempt to enter the bladder through the stricture resulted successfully. Dilated with the largest sized Voillemier tube, and a No. 12 elastic catheter left in the bladder.

Cyst—congenital, of the supra-orbital region, in a middle-aged man. Excised by Dr. Clark.

Sinuses of Back—in a boy twelve years old. He was struck, about a year ago, in the lumbar region by a stone. A deep-seated abscess followed, which opened spontaneously below the lowest rib of the right side, leaving a fistulous opening. A second fistula exists two inches from the one just mentioned, near the crest of the ilium; the two communicate deeply with a large cavity in the iliac region. The sinuses were laid open and a tent inserted, to facilitate drainage. It was remarked that the location of the abscess and its history suggested the possibility of its being peri-nephritic in character.

Cellulitis of Forearm—in a middle-aged man, following an amputation of the hand, through the metacarpal bones, for an extensive lacerated wound. The original injury, by stripping some of the muscles from their sheaths, had opened the way for the diffusion of the inflammatory processes from the hand to the elbow; pus had burrowed and infiltrated the tissues in all directions, and required the freest incision to afford adequate drainage.

Hæmorrhoids—in a man forty-nine years old. Attention was directed to the anæmic condition of the patient, the result of frequent and profuse hæmorrhages. Ligatured.

Necrosis of Femur—of ten years' duration, in a man thirty years old. Fistulous openings on the outer and inner aspects of the thigh communicated with dead bone in the lower third. The denuded surface was extensive, but a careful probing corroborated the statement made before examining the limb, that it was exceptional to find loose sequestra in necrosis of the femur.

Hæmorrhoids—in a middle-aged man. One mass, which had become consolidated by long-continued inflammation, was excised; the remaining piles were tied.

Supra-orbital Cyst—congenital, in a young woman. The tumor was unusually large, the sac very thin, and adherent to the periosteum; the surface of bone on which it rested presented a corresponding concavity. It was excised and the contents were a tenacious and honey-colored fluid, mixed with hairs; its interior surface was cutaneous.

Spermatocele.—Two operations on this patient were reported in the JOURNAL for April 9th; since then, the sac has again filled. It was tapped once more, and a clear fluid, resembling that usually withdrawn from a hydrocele, was evacuated. The testicles were found to be somewhat enlarged.

Supra-orbital Cyst—congenital, in a young boy. It was excised, and presented the usual appearances of such a growth.

Cancer of Breast—of two years' duration in a woman sixty-two years old. Its growth had been very rapid with very little pain; the whole breast was involved, the skin adherent, and the nipple retracted. Excision of the entire breast was performed by a large T incision; the latter was extended to the axilla, to permit the enucleation of some enlarged glands.

Phimosis—in a young man, caused by chancroids of the glans penis. Circumcision.

Double Talipes Varus—in a child three years old. Tenotomy of the tendo Achillis and plantar fascia of both limbs.

Elongated Prepuce—in a young man; the source of great discomfort and constant irritation to the glans. Circumcision.

R. R. Injury to Foot and Ankle-joint—in a man. The bones of the foot and ankle-joint were comminuted, and the soft parts extensively lacerated and bruised. Dr. Clark amputated at the middle of the leg by the double flap method.

Tumor of both Upper Jaws—painless, and of three years' growth, in a man

fifty-one years old. It involved the alveolar processes of both bones, extending from the second molar tooth of the right side around nearly to the same point on the left, and extending upwards nearly to the infra-orbital foramen. It presented a firm, nodular surface, projecting an inch or more into the mouth from the hard palate and alveolar surfaces, but did not extend into either antrum or the nasal cavities. A straight incision was made through the upper lip into the right nostril, and afterwards extended around the septum into the left; the cheek was dissected up on each side as high as the infra-orbital foramen, both second molar teeth extracted and the soft palate divided transversely behind the tumor. The palate and alveolar processes were then sawn through upwards quite into the antra. The anterior wall of the antra and the nasal processes were detached by a few strokes with the mallet and chisel, the vomer divided by bone forceps, and the tumor easily depressed and removed. Two large mucous polypi, which filled the nasal fossæ posteriorly, and entirely independent of the tumor, were removed by polypus forceps, the ligatures all cut short, and the flaps approximated by sutures.

Hydrocele—of tunica vaginalis in a middle-aged man, tapped, and a seton inserted. H. H. A. BEACH.

Obituary.

DR. BENJAMIN MANN.

DR. MANN was born in Randolph, Massachusetts, in 1814. He graduated at Amherst College in 1837. His preliminary medical studies were pursued with Dr. Alden, of Randolph, and with Drs. Perry and Bowditch, of Boston. He received his medical degree at the Harvard School in 1840.

His first field of practice was in Foxboro', Mass.; but after twelve years of residence there, he removed to Roxbury, where he continued in active professional labor till obliged by disability to desist. He was on his way home from a journey to Florida when the fatal attack overtook him in Brooklyn, N. Y., on the 21st ult.

Dr. Mann was devoted to the practical element in his profession. He worked with great assiduity, even to the time of life at which physicians generally begin to release themselves from the toils and anxieties of practice, and to seek for rest.

DR. AUGUSTUS HARRIS.

DR. HARRIS died in Colebrook, N. H., on the 20th of April last. His death was the result of a misadventure, whereby he took a tablespoonful of tincture of aconite root, when he intended to take tincture of rhubarb, for a trifling illness. Death occurred in forty minutes after the accidental dose.

Dr. Harris was one of the best known physicians in the upper Connecticut valley, his residence in Colebrook having extended over a period of forty-six years. His medical education was obtained at Bowdoin, and at Dartmouth, from which latter school he obtained his degree in 1838. His practice extended many miles along the Connecticut valley in both New Hampshire and Vermont. He was prominently identified with the White Mountain Medical Association, and was one of its officers. He was active and influential in all public matters relating to his section. As a member of society, he maintained a character above reproach, and his death will be severely felt by the people of Colebrook and vicinity. He became acquainted, professionally and otherwise, with many tourists to the upper Coos country, who will cherish pleasant recollections of him as a faithful physician and as a good and kind man. His age at death was 63 years.

Medical Miscellany.

MEDICINE AT THE ANTIPODES.—The University of Otago, New Zealand, has instituted a chair of Anatomy and Physiology, to which is attached a salary of $3,000 a year, besides class fees.

A VICTIM OF CHOLERA.—The great artist, Wilhelm Kaulbach, recently died of cholera, in Munich. The disease has been exceptionally severe in the Bavarian capital, owing to the water employed in the manufacture of beer—so say the local physicians.—*Lancet.*

APPOINTMENT.—Dr. F. W. Draper has been appointed Visiting Physician to the Boston City Hospital, vice Dr. William Read, resigned.

THE NEW YORK SOCIETY OF NEUROLOGY AND ELECTROLOGY was incorporated last January. Its object is "the study of the anatomy, physiology, pathology and therapeutics of the nervous system, and of electricity in its relations to physics, physiology and therapeutics." A glance at the list of members shows that much may be expected from this Society.

LEAD IN THE BRAIN.—Troisier has demonstrated, by chemical analysis, the presence of this metal, in considerable quantity, in the brain of a man, who, for thirty years, had followed an occupation which brought him in constant contact with lead. There had been no evidence of lead poisoning during life, nor of any brain symptoms attributable to the presence of this foreign agent.—*Le Mouvement Médical.*

WORCESTER NORTH DISTRICT MEDICAL SOCIETY.—At the annual meeting, April 25th, the following officers were elected:—
President.—Ira Russell.
Vice President.—George Jewett.
Secretary.—George D. Colony.
Treasurer.—Alfred Miller.
Librarian.—J. E. Gendron.
Commissioner on Trials.—George Jewett.
Censors.—Alfred Miller, C. C. Field, J. M. Blood, F. W. Russell, E. J. Sawyer.
Councillors.—Ira Russell, George D. Colony, George Jewett, B. H. Hartwell.

BERKSHIRE DISTRICT MEDICAL SOCIETY.—At the annual meeting, April 29th, the following officers were elected:—
President.—C. C. Holcombe.
Vice President.—W. W. Leavitt.
Secretary.—J. F. Alleyne Adams.
Treasurer.—Henry Eastman.
Commissioner on Trials.—Abner M. Smith.
Censors.—C. T. Collins, W. M. Mercer, F. K. Paddock, C. E. Heath, S. P. Dresser.
Councillors.—C. T. Collins, J. L. Miller, W. W. Leavitt, N. S. Babbitt, Andrew M. Smith, J. F. A. Adams.

ANEURISM OF THE ARCH OF THE AORTA.

Patient cannot swallow food
So well, he says, as once he could.
Œdema, pain, sometimes pulsation,
Something wrong with respiration.
Five may-be causes for dyspnœa;—
Veins, vagus, bronchus, lung, trachea.
If these are by the tumor pressed
The breathing will be much distressed.
—*Guy's Hospital Gazette.*

PHYSICIANS' POCKET CASE RECORD AND OFFICE CASE RECORD.—We have received copies of these books, which differ only in size. They contain spaces for the "date, name, diagnosis, age and physique of the patient; the condition of the pulse, temperature, respiration, tongue, urine and stools, also for general remarks." They appear to be very convenient. They are for sale by James Campbell, 18 Tremont St.

NOTES AND QUERIES.

KOUMISS.

CANON CITY, Colorado, April 29, 1874.

MESSRS. EDITORS,—I notice in your JOURNAL of March 26th, page 306, a new medicine, koumiss, referred to as a specific in phthisis. Please inform me as to where I can obtain this remedy, and, if not too much trouble, please give me a little more information as to the nature of the article. Respectfully, J. L. PRENTISS.

Koumiss is the fermented milk of any animal, but usually of the mare. It is said to be very nutritious and easily assimilated. We are not aware that it can be obtained in this country. Consult *British Medical Journal*, Feb. 21 and March 7, 1874, and *London Medical Record*, April 1st.—EDS.

PSORIASIS.

MARION, Ohio, April 29, 1874.

MESSRS. EDITORS,—Will some one of the profession who is posted on diseases of the skin give to the numerous readers of the JOURNAL a rational and philosophical treatment of the disease or diseases, lepra, psoriasis, or tetter. Are they all the same disease, or are they separate diseases, requiring different treatment? To make the fine points drawn out by Willan, is rather beyond my comprehension. Disease of the above character is in this country becoming more prevalent as the country becomes more thickly populated; and in a practice of twenty-three years I have found more cases of tetter, itch, or whatever it is, in the last few years than in all previous years together.

A CONSTANT READER.

A CORRESPONDENT relates the following case, and asks what was the cause of death.

"Woman in labor with eighth child, first seven living and born after easy labors, weighing from twelve to fifteen pounds. The present labor commenced at 12, noon; life felt until 1.30; that she distinctly remembered. I was called at 2.30; found the membranes just ruptured, and at 3 the head engaged in the upper strait in the first position, and at 4 the child was born; as easy and regular a labor as I ever attended for a thirteen-pound child, or any other, in fact.

"The child was perfectly formed; no signs of maceration, but *dead;* not the least pulsation at navel, and resisting attempts at resuscitation, lasting three quarters of an hour. The cord was very small and smooth, greenish in color and very tender. The placenta came away soon, and the patient made a good recovery.

"She felt life from the middle of the fourth month up to two hours before delivery, and not a sign during her whole term differed from the other seven."

MORTALITY IN MASSACHUSETTS.—*Deaths in eighteen Cities and Towns for the week ending April 25*, 1874.

Boston, 163; Worcester, 15; Lowell, 25; Milford, 4; Chelsea, 6; Cambridge, 16; Salem, 10; Lawrence, 10; Springfield, 8; Lynn, 23; Fitchburg, 2; Taunton, 11; Newburyport, 9; Somerville, 6; Fall River, 17; Haverhill, 4; Holyoke, 11; Pittsfield, 2. Total, 342.

Prevalent Diseases.—Consumption, 70; pneumonia, 38; scarlet fever, 13.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 2d, 156. Males, 73; females, 83. Accident, 2; apoplexy, 2; asthma, 1; aneurism, 1; inflammation of the bowels, 1; disease of the bladder, 1; bronchitis, 10; inflammation of the brain, 1; disease of the brain, 3; burned, 1; cancer, 2; cholera infantum, 1; cholera morbus, 1; consumption, 29; convulsions, 6; debility, 6; diabetes, 1; dropsy, 1; dropsy of the brain, 5; drowned, 1; dysentery, 1; erysipelas, 2; scarlet fever, 9; typhoid fever, 2; disease of the heart, 8; disease of the hip, 1; disease of the kidneys, 2; disease of the liver, 1; congestion of the lungs, 1; inflammation of the lungs, 16; marasmus, 7; malformation, 1; old age, 7; paralysis, 3; premature birth, 4; puerperal disease, 3; rheumatism, 1; scrofula, 1; syphilis, 1; whooping cough, 5; inflammation of the uterus, 1; unknown, 3.

Under 5 years of age, 60; between 5 and 20 years, 14; between 20 and 40 years, 29; between 40 and 60 years, 21; over 60 years, 32. Born in the United States, 107; Ireland, 34; other places, 15.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XC.] THURSDAY, MAY 14, 1874. [NO. 20.

Original Communications.

A CASE OF OVARIOTOMY.

By GEORGE HOLMES BIXBY, M.D., of Boston,
Surgeon to St. Elizabeth's Hospital for Women.

MRS. T., a resident of Boston, consulted me November 3, 1873, for an enlargement of the abdomen. She was forty-five years of age, of healthy parentage, a native of Massachusetts. Two sisters died of phthisis. Menstruation first took place in the twelfth year; at the very first appearance, was suppressed by bathing the feet in cold water; reappeared six months after, and continued regularly, as to time, quantity and quality, but was painful. She married at twenty, gave birth and miscarried as follows: the first birth, eighteen months after marriage; the second, a year and a half later. Several miscarriages subsequently occurred. She was then confined to her bed five years; two years of this time in a dark room. A living child was born twelve years ago, and she has miscarried twice since, making in all seven miscarriages.

Notwithstanding her condition, she was actively engaged in the duties of superintendent of a large dress-making establishment, which required much standing, and the frequent use of the sewing machine. In order to sustain her failing strength, she indulged in strong coffee several times a day. The patient first became conscious of her disease two years ago. The menses had been scanty the past year, and last appeared two months previous. She had suffered many years from incontinence of urine, but nothing abnormal was found in the quality of the secretion. The patient is of medium height, dark complexion, and of an excessively nervous temperament. The enlarged abdomen was apparent through the clothing. On removal of the latter, I found emaciation of the neck and shoulders; mammæ and external genitals normal; the abdomen, at umbilicus, thirty-six inches in circumference; heart and lungs healthy. On percussion, dulness was elicited in all parts of the abdomen, with the exception of the left flank; also evidences of fluctuation, of which the wave was unbroken. Vaginal exploration revealed an enlarged and anteverted uterus, its cavity measuring three inches. By bi-manual palpation, evidences of fluctuation were detected in Douglas's fossa to the right. Diagnosis—Cystic disease of the right ovary. This opinion was confirmed by the aspirator; the fluid drawn resembled syrup in color and consistence, and was found, on analysis, to contain albumen, and crystals of collesterine. I proposed to operate six days after the cessation of the next menstrual turn. The catamenia did not return at the expected time, therefore the date of the operation was indefinitely postponed.

On the 17th of November, I was called in great haste to see the patient. I found her suffering from pain and dyspnœa, on account of the enormously distended abdomen. I reluctantly tapped her, and allowed only fluid enough to escape to afford relief. The paracentesis was followed by severe reaction, and, notwithstanding the most nourishing diet, she did not regain her former strength; in fact, was confined to her bed. At the end of three weeks, the cyst had attained two-thirds its original size.

These urgent symptoms necessitating prompt action, on the 8th of December, in the presence of Drs. Wheeler, of Chelsea, Pinkham, Lovejoy and Webster, of Lynn, Lyman, Warner, Cheever, Homans and Chadwick, of Boston, the operation was undertaken. Ether having been administered by Dr. Wheeler, the patient was brought into the operating room and placed upon a Crosby bed. The right ovary being affected, the incision was made to the right of the linea alba, and as near as it was possible to estimate it over the pedicle. On reaching the cyst, it was found to be adherent anteriorly on either side of the median line, but was confined to the parts above the umbilicus. The adhesions were comparatively recent, and yielded readily to a slight effort with the uterine sound. The cyst was multilocular. The main sac, which lay in front, contained a thin, purulent fluid. The pedicle, three inches long, one inch and a half broad, was secured by a clamp, severed from the mass, and replaced in the lower angle of the wound. The abdominal cavity was carefully sponged, and, later, washed out with carbolized boiled water, by means of a fountain syringe, and the incision brought together with three silver sutures that included the peritoneum. A small opening was left at the lower angle of the wound. A sheet of wool wadding was applied over the abdomen, and covered with the interlacing straps of adhesive plaster, after Prof. White, of Buffalo. Notwithstanding her feeble condition, she bore the operation remarkably well, and without the slightest nausea.

4.30, P.M., two hours after the operation. Pulse, 120; temperature, 98°. Patient is free from pain; her extremities warm.

2½, A.M., twelve hours after the operation. Pulse, 110; temperature, 94°; no pain; extremities warm.

Dec. 9th, twenty-four hours after the operation. Pulse 110; temperature, 94; urine free. Slept soundly, fifteen minutes at a time, all night. During the night, complained of pain in her bladder, which was probably from the pedicle. Ordered an opiate suppository, repeated in four hours; pain controlled.

Dec. 10th. The patient passed an excellent night, having slept quietly under the effects of the opiate. Urine has passed freely, without catheter. Skin moist; pulse, 100; temperature, 90°.

Contrary to strict orders, during the day, the bed had been let down, and some changes made in the clothing. A decided change was apparent at first sight; pulse 120, and small; temperature, 98°. Fearing septic poisoning, I removed the clamp, in order to facilitate drainage in that direction; there was, however, no escape of fluid. The pedicle was mummified, and its removal occasioned neither pain nor undue excitement.

2, P.M.—Dr. Wheeler saw the patient with me. On removing the dressing, we were astonished to find decided tympany at the seat of the adhesions. The lower part of the abdomen, near the clamp, was quite

flat. Poultices were applied to the abdomen, heat to the extremities, stimulants administered by the mouth, beef tea and quinine by the rectum. The location of the gas being so well defined, I desired to remove it with an aspirator needle, but the patient would not consent. All our efforts were fruitless. At 2, A.M., the pulse were not longer perceptible at the wrists. 3, A.M., the patient expired.

The exciting cause of death was peritonitis; the predisposing cause, anæmia, and great physical exhaustion. The golden moment was two weeks before the tapping, the refilling of the cyst having exhausted her beyond recuperation. Her previous history was, certainly, not without its influence upon the result.

Post-mortem appearances. Body extremely emaciated; abdomen tympanitic above umbilicus, flat below near the clamp; peritoneal surface ecchymosed, and exhibited other evidences of inflammation. Little or no fluid in the pelvic cavity.

NEARSIGHTEDNESS AND SCHOOLHOUSES.

By B. Joy Jeffries, M.D., of Boston.
Surgeon to the Massachusetts Charitable Eye and Ear Infirmary.

Some six years ago, both in this Journal and in the *Massachusetts Teacher*, I called the attention of physicians and educators to some unnecessary causes of impaired vision. I gave a *résumé* of the results of Dr. Cohn, of Breslau, who, desirous of finding whether the refractive and other troubles of the eye were not induced by inadequate and improper light, badly arranged and badly planned school-desks, &c., first examined the schools in Breslau, and, to avoid errors, afterwards, those in other places in Silesia, not content till his lists contained over ten thousand records.

Amongst other important facts, he ascertained that nearsightedness increased regularly from childhood upwards with the increasing demands upon the eye, and this led him to ascertain what there was in the schools which originated or increased myopia. He had taken the bodily measurement of these ten thousand children, and measured in comparison the school-desks and seats, from which he found that all school furniture was badly constructed, so as to readily induce or increase nearsightedness. From the furniture not being adapted to the body of the children, they are obliged to bend the head over forward, thereby hindering the return of the blood from the eye, and keep the print so near as to too greatly task the power of accommodation. Both of these, as we know, induce nearsightedness. Inadequate light and misplaced windows greatly affected the amount of myopia among the pupils of the school, as also inadequate and badly managed artificial light where used.

Now, then, comes the question, whether any of these causes of nearsightedness can be prevented or removed. If so, it certainly is a duty to teach the community what they ought to do, and how. Prof. Donders well said, "the cure of nearsightedness belongs to the *piis desideriis*." The too long axis of the eye cannot be shortened, or the bulging of the posterior pole of the globe reduced. But we can do a great deal to prevent nearsightedness developing in those prone to it, and check it where progressive, by adequate illumination, natural

and artificial, not forcing the scholars, proper type and impression, and, most of all, by seats and desks appropriately constructed.

Many will remember the pride with which we sent samples of our school furniture and appurtenances to the Paris World's Fair. These, like all the others there exhibited, were measured by Dr. Cohn, and found so arranged as to produce the very trouble under discussion, namely, a tendency to, or increase of, nearsightedness. I would refer to his article on the "Schoolhouses at the Paris Exposition from a hygienic point of view," published in No. 41, 1867, of the *Berliner Klinische Wochenschrift.*

In October, 1873, Dr. Cohn visited the Vienna Exposition and carefully examined the schoolhouses and furniture there exhibited. He reports his results in a pamphlet of some sixty pages, and concludes that on the whole there has been very great advance since the Paris Exposition in the construction of school-desks and seats, and the arrangement of schoolrooms. For instance, whilst the Paris Fair contained schoolrooms with windows *behind*, to *one side*, and in *front* of the children, no one has dared to exhibit any room in the Vienna Fair with windows, at least, in *front* of the children. The proper plan of having windows only on the children's left hand is gradually becoming recognized, even in the United States, by construction committees. Dr. Cohn carefully compares some fifty different systems of school-desks and seats, and the United States specimens come in for a good share of praise, if, also, for some blame. As to the *schoolhouses*, our friend Mr. Philbrick, here in Boston, has told us enough to make one's ears tingle with shame.

Dr. Cohn concludes his pamphlet with the following: "Quite lately, further very careful examination of the eyes of school children have been made, with the same gloomy result which I found eight years ago in Breslau. Dr. Erismann,* in Petersburg, Dr. Kruger,† in Frankfort am Main, and Dr. Hugo von Hoffmann,‡ in Wiesbaden, have found a similar constant and enormous increase of the number of near-sighted scholars, and the same increasing degree of myopia from class to class upwards. Further investigations of my own carried on here for some years in our Friederich's Gymnasium§ have only confirmed the views I expressed in my book published in 1867."

"No one now doubts but that faulty illumination and bad desks and seats contribute to the origin and increase of nearsightedness. The comparisons made at the Vienna Exhibition have shown how the light should *not* be arranged and the furniture *not* constructed. They have, however, also shown that the question of proper light and good desks, by no means decided by the Paris exposition, has been solved by the Kunze model."

Now six years ago, I remarked, and later observation has confirmed me in this, does all said about nearsightedness in school children and students apply to our American communities? I believe, from personal experience, that it does, and that such extended researches as Cohn has made, if here undertaken, would prove it beyond doubt. A higher standard of education is being steadily demanded and striven

* Graefe's Archiv für Ophthalmologie, vol. 17, 1871, 1st part.
† Frankfurter Jahresbericht über die Verwalt. des Medicinaler, xv., 1872, p. 84.
‡ Zehender's Klinische Monatsblatter für Augenheilkunde, 1873, Oct., p. 269.
§ Program des Königlichet Friedrich's Gymnasium, zu Breslau, 1872, Ostern.

for, and can be gained only by taxing the eyes more severely. It would certainly seem, therefore, the duty of parents, as well as of all interested and occupied with the education of youth, our Boards of Education and School Committees, to assure themselves that they are doing all in their power to avert what even the community generally recognizes as a growing evil, namely, the graduation of a large number of highly educated young men and young women with permanently impaired vision from unnecessary causes.

I certainly shall watch with some interest the construction of the imposing building soon to be erected for the accommodation of the Latin and High Schools in this city, and express a hope that the very valuable experience gained by our Superintendent of Schools at Vienna may not be disregarded by construction committees.

Progress in Medicine.

REPORT ON OPHTHAMOLOGY.

By O. F. Wadsworth, M.D.

[Concluded from p. 457.]

Strychnia in Affections of Vision.

So much has been written in the last three or four years on the treatment of defects of vision by strychnia, so many and so various have been the published cases in which it has appeared to be of benefit, and so different the indications and counter-indications for its use given by different writers (while some have not been able to convince themselves of its efficacy at all), that it is interesting to compare the conclusions reached by two independent observers as to its action on the eye, both in health and disease. (v. Hippel. *Wirkung des Strychnins auf d. normale u. Kranke Auge, Berlin,* 1873. Cohn. *Wirkung des Strychnin auf amblyopische u. gesunde Angen, Wiener Medizinische Wochenschrift,* No. 42–47, 1873.) It was, perhaps, to be expected that their views would vary somewhat as to its value in pathological conditions (they appear to be almost diametrically opposed), but hardly that they should differ so much as they do regarding its effects on the normal eye.

Von Hippel's experiments on the normal eye were made on himself, Cohn's on one of his pupils; the observations of both seem to have been made with care. Both injected the strychnia subcutaneously on the temple. Cohn in the dose of two milligrammes; v. Hippel, generally, three milligrammes. Both found that the sharpness of vision for Snellen's types was somewhat increased by the drug, but only in the eye on the side the injection was made; Cohn states that the increase of vision lasted during fourteen days; v. Hippel that it always returned to the normal state in twenty-four hours. V. Hippel, alone, tested also the indirect vision, and found the size of the field over which two black dots on a white ground could be distinguished as separate was very much increased by strychnia. The field in which white could be distinguished, in v. Hippel's case, was decidedly enlarged, and, after three injections on each side, remained somewhat larger than before the injection, for at least four weeks, he says, "permanently."

Cohn, after nine injections, found the alteration in the field for white so slight that it might well have been due to error of observation. The field in which different colors could be distinguished, v. Hippel found increased under the influence of strychnia only for blue on a black ground, for this it was much larger in all directions; Cohn found the field larger both for blue and red, but only in certain directions, and to a less degree. Both observers made their measurements of the field with Förster's perimeter, and with test objects of the same size. Both, using somewhat different methods, found the least amount of light necessary for accurate perception of objects uninfluenced by strychnia; v. Hippel also found no change in the amount, or power of maintaining accommodation, or in the size of the pupil, and after injecting three milligrammes of strychnia into the arm could detect no variation in acuteness or size of the field of vision.

As regards the use of strychnia in disease, they differ, as stated above, widely. Both use the same dose, i. e. two milligrammes. Cohn agrees with Woinow, that if no improvement be obtained after two injections, none can be expected, and apparently endorses the latter's statement that no benefit occurs when, besides diminution of vision, inability to distinguish colors is present. Von Hippel has seen improvement commence in some cases only after six or eight injections, and states that, although ability to distinguish colors is not restored, yet its absence does not require an unfavorable prognosis. Cohn, in this, as in a former paper (Report Nov. 14, 1872), finds the chief benefit of strychnia in cases of hypermetropia or emmetropia with amblyopia, without ophthalmoscopic change; v. Hippel in cases with signs of atrophy of the optic nerve. They sum up as follows: Cohn:—In all cases where the ophthalmoscope does not explain the amblyopia, the trial of strychnia is indicated. Very doubtful is the result if there is any trace of beginning degeneration of the opticus; absolutely useless are the injections when evident atrophy of the nerve is present. Von. Hippel:—Strychnia is well suited to take that position in regard to the opticus which we give to the constant current in regard to other nerves. Its most brilliant effect appears in conditions which without it are absolutely unreached by our therapeutics; in atrophy of the opticus from the most various causes.

Taylor *(Lancet,* Dec. 13, 1873) reports very briefly three cases of atrophy of the optic disc, in which great and rapid improvement in vision followed the subcutaneous injection of strychnia. In a fourth case, there was, also, considerable improvement. Taylor used one-twelfth of a grain twice daily, a much larger dose than Cohn and v. Hippel employed. He states that he has used strychnia in many other cases, apparently similar, without result, and that it is impossible to say, beforehand, which cases will be benefitted and which not.

Sarcoma of the Iris.

Robertson and Knapp report *(Archives of Ophthalmology and Otology,* III. 2) a case of melanotic sarcoma of the iris for which the eye was removed. The tumor, when first observed, was single near the upper and ciliary margin of the iris. Vision had been noticed to be quite dim six months before. There was increased tension, and glaucomatous cupping of the disc. Two months later the original tumor had more than doubled in size, and three other smaller tumors were seen.

Subsequent examination showed, beside the tumors previously seen, numerous minute rounded elevations. Sections of the iris showed its anterior layer thickened and studded with small tumors; where the larger tumors were, the middle layer had disappeared. The tumors were made up chiefly of spindle and round cells with pigment, and contained numerous large vessels. The patient was well two years after removal of the eye.

Carter (*Lancet*, Dec. 20, 1873) exhibited a patient of 15 years to the Clinical Society of London with tumors of the iris in both eyes, which were steadily increasing. Six weeks before, a similar tumor, the size of a split pea, the first which had been noticed, and the only one at that time in the left eye, had been removed, with a portion of the iris. A fresh tumor had appeared in the eye since the operation. The tumor removed proved to be a round cell sarcoma.

Amyloid Degeneration of the Choroidal Arteries.

Knapp (*Archives of Ophthalmology and Otology*, III. 2) reports a case of this hitherto undescribed affection. A gentleman, aged 42, after a night spent in dancing, drinking and smoking, noticed nearly total loss of sight in the left eye. The other eye was quite normal. There was evident hæmorrhage into the vitreous, and as this did not clear up as signs of irritation passed off, but became darker, it was supposed that a tumor of the choroid might have given rise to the hæmorrhage, and five weeks later the eye was enucleated. No tumor was found, but in the blood in the vitreous chamber, and also in blood effused between retina and choroid and choroid and sclera, numerous round, hyaline bodies, from the size of a white blood corpuscle to two or three times as large, were present, in some places in greater number than the blood corpuscles. These offered the reactions of amyloid bodies. The calibre of the arteries of the choroid was much reduced, and the addition of iodine gave the characteristic brown-red color of amyloid degeneration in their inner and middle coats. As amyloid degeneration is considered not a local but general disease, the patient was carefully and repeatedly examined, but without detection of any deviation from health, nor was there a history of any of the affections usually supposed to lead to amyloid disease.

Stricture of Nasal Canal without Dilatation of the Lachrymal Sac.

Becker (*Graefe's Archiv*, XIX. 3) points out the importance of careful examination by means of the probe, as to the existence of stricture of the nasal canal in cases of chronic catarrhal affections of the conjunctiva, especially when only one eye is affected. It is well recognized that such affections are often caused and maintained by stricture of the nasal canal; but it is also generally assumed that if stricture exist for a long time dilatation of the lachrymal sac must also be present, which, if not evident to the eye, may yet be recognized by the touch, gentle pressure causing the fluid in the sac to pass down into the nose or up into the conjunctival sac. He shows by the report of two cases that the latter assumption is not always correct. Stricture of the canal may exist without dilatation of the sac. In both his cases, there was decided papillary hypertrophy of the conjunctiva, dating from, respectively, 18 and 30 years; in one the right eye only, in the other both eyes, were diseased; both had been treated without

result by well known oculists; in neither did pressure reveal any affection of the lachrymal sac. The probe, however, showed stricture at the entrance of the nasal canal, and, so soon as this was overcome, the conjunctival trouble, without other treatment, disappeared.

Galvano-Cautery in Ophthalmic Surgery.

Samelsohn *(Archives of Ophthalmology and Otology*, III. 2) recommends galvano-cautery for certain diseases of the conjunctiva and adnexa of the eye. Latterly, he has employed two Genet-Stöhrer elements filled with bichromate of potash and dilute sulphuric acid. The method may be used for the closure of old lachrymal fistula, or obliteration of the lachrymal sac. Fortunately, the latter operation is seldom, if ever, necessary. In partial trichiasis, Samelsohn states that the galvano-cautery has always given him satisfactory results. Streatfeild's or Snellen's operation (excision of a wedge-shaped piece of the tarsus) may often be of advantage when the upper lid is affected, but is scarcely applicable to the lower lid. The idea governing the application of the cautery is to exercise by contraction of a cicatrix in the cartilage a traction upon the tissue covering it. The eye is protected by a spatula under the lid, and a hole is burned into the tarsus below the roots of the inverted lashes with a fine galvano-cautery. The result, as stated, is excellent. Other cautery than galvano-cautery will hardly answer the purpose, since it cannot be made to penetrate deep enough, at least without too much injury of the skin.

In chronic gelatinous granulations of the conjunctiva, Samelsohn recognizes the general harmfulness of caustics, but, in view of the generally admitted fact that cicatricial contraction always occurs under any treatment, was led to the idea that, if the cautery were limited to the isolated granulations, their pressure on the neighboring tissues might be removed and too great contraction prevented. To this end, he applied the cautery lightly to the centre of each granulation with a fine platinum wire, cauterizing only a few at each sitting, at intervals of a week. The operation was painless, the reaction slight. In the five cases so treated the result is described as very favorable; very slight linear scars were left, and there was no deformity of the cartilage.

Rapid Changes of Refraction in the Eye.

At the last meeting of the Heidelberg Ophthalmological Society, Horner *(Monatsblatter für Augenheilkunde*, 1873) related two interesting cases of rapid change in the refraction of the eye. A man of 61 years, myopic from childhood, wearing $-4\frac{1}{2}$ glasses, in the middle of May, 1871, remarked a sudden change in the left eye. A small separation of the retina was found; myopia $\frac{1}{5}$, V $= \frac{1}{5}$. The separation increased and the myopia correspondingly diminished to $\frac{1}{8}$, $\frac{1}{12}$, $\frac{1}{18}$. In the middle of June, there was even hypermetropia $\frac{1}{36}$, and V had risen to $\frac{1}{3}$. The patient was now in better condition without a glass than formerly with one, but toward the end of the year another change took place, and again concave glasses were of benefit. On Feb. 4, 1872, in the same left eye, the retina had returned to its proper position; myopia was $\frac{1}{6}$, V still $\frac{1}{3}$. The right eye, which had always been the weaker, remained throughout myopic $\frac{1}{3}$, its V between $\frac{1}{7}$ and $\frac{1}{5}$. Isolated instances of reposition of the retina after separation, with restoration of function, are not unknown; but, so far as the reporter is aware,

no case in which so perfect function has been maintained during the separation has been before observed.

The second case was that of a lady of 55 years, who, in September, 1870, still read, during the day, print and music without a glass, and only by artificial light or on dark days used convex $\frac{1}{48}$ L. and $\frac{1}{24}$ R. Since August, she had suffered from diabetes mellitus, passing a very large amount of urine containing much sugar. Toward the end of October, vision became rapidly worse, and her glasses no longer served. Horner saw her on Nov. 19th, and found hypermetropia $\frac{1}{14}$, V. R. = 1, L. = $\frac{5}{6}$; normal fundus, and no sign of opacity of the lens. She was already under treatment for the diabetes, and had begun to improve. The quantity of urine and sugar continually diminished, and the glasses ordered in November became useless. On Jan. 13, 1871, the hypermetropia was reduced to $\frac{1}{48}$.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION. W. L. RICHARDSON, M.D., SECRETARY.

Case of Lithotrity.—Dr. C. B. PORTER reported the case.

Mr. ——, a middle-aged, strong, healthy man, except for his bladder symptoms, which have existed, to a more or less extent, for twenty years. First attack of "stoppage of water" in June, 1854. Complete retention for thirty-six hours. "Urine started suddenly, and with a gush." In 1855, an attack of renal colic. No special symptoms from 1855 to 1863, and during another respite from 1863 to 1871. In February, May, June and August of 1871, had successive attacks of renal colic, and, from latter date, symptoms of stone in bladder became prominent. Excessive pain in the end of the penis, darting pains through the rectum, aggravated by sudden motion or jolting; the urine filled with mucus, pus and clots of blood. In the summer of 1873, he became so bad as to be unable "to retain his water at all." He was sounded a number of times by different physicians, but no calculus was detected. Each examination was followed by an aggravation of the symptoms, attended by rigors. There was no especial change in the symptoms up to the time I first saw him, Feb. 9, 1874, except a gradual failing in health from extreme suffering. I felt convinced, from symptoms, of the presence of calculus in the bladder, and, upon sounding him, found it immediately as the instrument entered the bladder. On Feb. 10th, I crushed; 11th, symptoms of vesical irritation were less, and a large number of fragments passed with urine. On the 12th, he was very comfortable. The 13th, I crushed again. The 14th, he was so comfortable that the lithotrite was again introduced, but no fragments were found. From this date, the urine commenced to clear up very rapidly. On the 21st, he could hold his water from three to four hours, and, on passing it, it was quite clear. From this time, his recovery was rapid and complete.

Duration of Pregnancy.—Dr. DRAPER reported two cases in which he had been able to determine the exact duration of pregnancy. The patients were married women, who were enabled to accurately state the date of conception, the enforced continence of their husbands, be-

fore and subsequently, leaving no doubt in the matter. In one case, that of a primipara, labor came on after 278 days; in the other, a woman who had previously borne five children, the duration of pregnancy was 277 days.

Case of Unilateral Atrophy.—Dr. WEBBER reported the case.

A little girl, while cutting upper incisors, had convulsions, and with each of the other teeth had spasms. These continued, with less severity, till she was 7 or 8 years old, and gradually ceased. The right side had, from the time she began to walk, been noticed to be less useful than the left; also, the letters r, m and n were difficult to speak. During convulsions, no strabismus, but twitching of the eyes. Catamenia appeared at 11½ years. Regular since, except at 13, during convulsions. At about 13 years of age, had one single convulsion, and perhaps another slight one, though possibly others may have occurred at night. Intelligence probably about equal to the average of girls of her age.

The right hand and arm are now most affected in regard to motion. The right arm and leg were less developed than the left, being less in circumference and shorter. Right side of body less in circumference. Measures of face and head equal on two sides, except from ear over vertex, a difference of half an inch (on which side was not mentioned).

Right pupil dilates more when exposed to light. Both eyes move well. Both eyes have loss of vision on the right. This was not known by the patient before examination, and was tested several times. Both papillæ were seen to be oval in shape and unusually white.

An unusual Source of Otorrhœa.—Dr. GREEN spoke of the importance of recognizing the exact source of an otorrhœa, in order to treat it successfully. It might, he said, arise from a simple (uncomplicated) purulent inflammation of the mucous membrane of the tympanum, the discharge being evacuated through a perforation of the membrana tympani; or from a simple inflammation of the lining of the meatus, especially in very young children; or from either of these sources, complicated by granulations, which keep up the inflammation. In the tympanic disease, we may have such granulations growing from any part of that cavity, from the edges of the perforation in the membrana tympani or from the outer surface of that membrane; in the inflammation of the meatus, we may likewise have granulations from any part of the passage.

In addition to well-marked otorrhœa from any of the causes above enumerated, we may also have cases where the discharge is so slight that it dries in the meatus and wholly escapes notice, and where a most thorough examination of every portion of the passage is necessary to discover the source of the discharge. The presence of pus implies inflammation, and examination should show where it is.

Dr. Green said that he had reported, last year (*Transactions of the American Otological Society*, 1873), two cases in which a slight otorrhœa arose from very superficial ulcerations of the dermoid layer of the membrana tympani, and recently he had seen a case in which the source of the discharge was found with such difficulty that he thought it worth reporting. A boy, aged four years, in whose family there was a decided predisposition to ear-disease, was brought to him with the history that, for two years, his mother had noticed occasionally a slight offensive odor in one ear; there had never been ear-ache, deaf-

ness or any complaint of the ears, and no discharge had ever been noticed. Examination showed a mass of dried pus in the meatus, which was removed with the syringe; the membrana tympani was free from congestion and swelling, and the meatus appeared perfectly normal. The dried pus was thought to have been the cause of the odor, and the result of some previous inflammation of the meatus which had escaped notice, but, on examining the ear a week after, a small quantity of pus was again found on the upper wall of the meatus; no inflammation, however, could be discovered till, on bending the head to one side at a right angle and wiping away all moisture, a small spot of inflammation was seen on the upper wall, a short distance from the orifice of the meatus. On this spot were two or three granulations, and a bent probe could be passed into a sinus one eighth of an inch deep, running into the subcutaneous cellular tissue. From these granulations and this sinus, the pus was secreted. Cauterization with solid nitrate of silver fused on a bent probe destroyed the granulations in a few applications, and healed the sinus. When last seen, there was only a slight congestion at the seat of inflammation; the discharge had entirely ceased.

Phosphoric Acid in the Urine in Cases of Disease of the Brain.—With the view of determining whether the excretion of phosphoric acid by the kidneys is in any way influenced by diseases of the brain, Dr. E. Mendel has carried out a series of experiments, the results of which are as follows:—

The relation between the phosphoric acid excreted and the remaining solid constituents of the urine varies considerably, ranging from 2·49 to 3·93 per cent., averaging, therefore, 3·233 per cent. A greater quantity of this substance is excreted by night than by day. In chronic diseases of the brain, the daily excretion of phosphoric acid is diminished, both absolutely and relatively, as compared with the other solid constituents. In cases of maniacal excitement, there is an increase (absolute and relative) of the phosphoric acid; an increase is likewise noticed during apoplectic and epileptic attacks, and also after the administration of chloral and bromide of potash.

If a diminution of the amount of this acid is observed in cases of chronic disease of the brain, this diminution will generally be found to be dependent upon the decreased muscular activity, consequent upon prolonged illness. In other cases, it is to be attributed to the general deterioration and wasting of the system, the result of imperfect assimilation.—*Archiv für Psychiatrie.*

Explosive Medicines.—Young medical men are warned (*Révue de Therapie*, 1873) against combining in their prescriptions certain agents, which, in case of the development of any acid, or even if exposed to a moderately high temperature, are liable to *go off*. Among these dangerous formulæ may be cited a prescription for pills not unfrequently employed in England, composed of nitrate of silver, extract of nux vomica, muriate of morphia, conserve of roses and extract of gentian, which, when affected by the development of heat, will speedily explode. In like manner, pills made of nitrate of silver and creasote, or carbolic acid, will very soon generate heat sufficient to induce spontaneous conbustion. Still more surprising to the occupants of the sick chamber, is the energetic explosion (suggestive of nitro-glycerine) arising from the pills or mixtures of which oxymuriate of potash forms an ingredient.

Bibliographical Notices.

Animal Locomotion. By J. Bell Pettigrew, M.D , F.R.S., &c. (International Scientific Series.) New York: D. Appleton & Co. 1874. Pp. 260.

Dr. Pettigrew's friends cannot but be greatly annoyed that he has written this book. He enjoyed the reputation of an original and painstaking investigator, who had done much to advance science. Though his studies on the arrangement of the fibres of the heart and of other hollow muscular organs are not absolutely conclusive, they have always been highly esteemed. How much, then, is the appearance of the present book to be regretted! Though claiming to be popular, scientific and instructive, it is obscure, illogical and full of errors. It is no reflection on the author's acquirements to say that he is out of his depth, for it is no reproach to an anatomist that he is unable to grapple with the most difficult physical problems, but it is a serious reproach that he should either have very greatly overestimated his powers, or else, as we suspect is the case, have thought that his treatment of the subject was good enough for his readers. As a specimen of logic, take the following passage:—"That artificial flight is a possible thing is proved beyond a doubt, 1st, by the fact that flight is a natural movement; and, 2d, because the natural movements of walking and swimming have been successfully imitated." We have no time to see how many fallacies we could extract from these two propositions; as an argument it is precisely on a par with that of the Yankee schoolboy in the poem of the "flying machine":—

"The birds can fly
And why can't I?"

As an example of style, take the following sentence:—"In the giraffe, the legs of opposite sides move together and alternate, whereas in most quadrupeds the extremities move diagonally." Now, who that did not know that in the giraffe the legs of each side move together and alternately with those of the other side, could learn it from the above quotation?

Besides an introduction and an appendix, the book consists of three parts, which treat respectively of locomotion on land, in the water and in the air. Though there is much to criticize, there is also a good deal to praise, and no one can read the book without profit. The figure-of-eight movement, which is becoming an "*idée fixe*" with the author, is shown to have a very general application, though it is sometimes introduced in a purely fantastic manner, as when it is drawn through the footprints of a quadruped. Dr. Pettigrew speaks as follows of the relative importance of the osseous and muscular systems:—"The bony skeleton is a miracle of design, very wonderful and very beautiful in its way. But when all has been said, the fact remains that the skeleton, when it exists, forms only an adjunct of locomotion and motion generally. All the really essential movements of an animal occur in its soft parts. The osseous system is, therefore, to be regarded as secondary in importance to the muscular, of which it may be considered a differentiation. Instead of regarding the muscles as adapted to the bones, the bones ought to be regarded as adapted to the muscles." This is well expressed, and true as far as it applies to those bones which are organs of locomotion, but an exception should be made for such parts of the skeleton as are solely for the protection of enclosed organs. The account of the mechanism of the human walk is sketchy and inaccurate. The swinging leg can be compared to a pendulum only with great restrictions. Meyer* has shown that the great mass of muscles going from the pelvis to the thigh must interfere very seriously with a passive swing. Though Pettigrew refers very frequently to the experiments of the Webers, he does allude to their discovery that to make the

* Statik und Mechanik des Menschlichen Knockengerüstes.

leg swing properly a certain impulse is necessary; now this is precisely what the foot, just as it leaves the ground, imparts to the leg, so that the motion does not begin like that of a pendulum. Neither is it finished like one, for there is no doubt that in a step of ordinary length the muscles of the front of the thigh and leg come into play. But little weight is attached to the horizontal rotation of the pelvis on the supporting femur, though this is a far more essential part of the step than the rotation of the leg and foot. We cannot understand how, "in walking, a spiral wave of motion, most marked in the antero-posterior direction (although also appearing laterally), runs through the spine."

The chapter on progression on and in the water is very interesting, and, to our mind, the best in the book, though flying is more elaborately discussed. Dr. Pettigrew does not admit that the air-sacks of birds are for the purpose of assisting flight by reducing the weight, which he thinks is no part of the theory of flight, but a grave error, which has retarded our progress in aëronautics. We shall not attempt to review this part of the book, which we may as well own we do not understand, though there is much in it of interest. To sum up as favorably as possible, if any one will wade through much that is obscure, fill out much that is crude, and overlook certain statements and reasoning which are evidently wrong, he cannot but gain in learning by the perusal, and were there a less distinguished name on the title-page he might not be very much disappointed. T. D. JR.

Dictionary of Elevations and Climatic Register of the United States; Containing, in addition to Elevations, the Latitude, mean Annual Temperature, and the total Annual Rain Fall of many Localities; with a brief Introduction on the Orographic and other Physical Peculiarities of North America. By J. M. TONER, M.D., New York: D. Van Nostrand. 1874.

THERE are thirty-one pages entitled "Introduction," and ninety-three of the "Dictionary" form, in this pamphlet, and the author has inscribed his work with a well merited and neatly worded compliment to Prof. Joseph Henry, LL.D., Secretary of the Smithsonian Institution.

Dr. Toner is already favorably known by his published writings, and the following paragraph, taken from a somewhat extended notice in the *Washington Star*, seems to be well deserved testimony to his services:—

"The various treatises by Dr. J. M. Toner, of this city, upon matters of Social Science, have attracted attention, and have resulted in several instances in setting on foot very valuable reforms. One of the plans of an important sanitary and humanitarian nature broached by him has been that of establishing sanitariums on elevated grounds for the use of sick children in the hot season, a time of the year when the little ones are swept off by thousands by cholera infantum and like diseases in our crowded cities. He urges with force that our entire thought should not be expended upon the mere wrecks of humanity cared for in our hospitals, but should be directed also to the myriads of young lives now sacrificed annually to disease, but who [which?] might be saved to fill careers of usefulness in the world."

The author has derived the materials for his work from the best sources—amongst others, from "the Smithsonian records and contributions; from Chas. A. Schott's tables and results of precipitations; from Blodgett's Climatology; Gen. A. A. Humphrey's Physics and Hydraulics of the Mississippi Valley; Forry's work on the Climate of the United States, the Army Meteorological Registers, the Geological Reports of Prof. Hayden and others, various railroad surveys, United States Surveys and Expeditions, and from unpublished material in the possession of the departments of the Interior and Agriculture, the United States Signal Office," &c. &c.

In the "Dictionary of Elevations," the "height in feet above the sea level is given, of all the cities, towns and localities in the United States that the compiler has been able to find a measurement of." Wherever the data could be obtained, the latitude and longitude, and also the mean annual tempera-

ture, and total annual rain fall of each locality has been given. It will be evident that this must have been no slight task for the "compiler," as Dr. Toner modestly styles himself; and, so far as we can see, the work has been faithfully done, and will prove of great service.

Reference is made to the well-known marked influence of high and dry localities upon human health; a fact so prominently brought forward, of late years, by the highest authorities in hygienic matters, that we need not enlarge upon it here. Its importance cannot be over-estimated.

The *Introduction*—as Dr. Toner terms it—is very interesting, full of information, and written in a spirited manner, with a *con amore* flavor about it which pleases us. The truth that low-lying localities are, and must necessarily be, less healthy than "the high places of the earth," is well set forth by the author; and the reason why the former have been often the seat of populous cities, to the vast harm of those founding them, is clearly set forth—viz., the *greed of gain*. "It would seem that the preservation of health and the culture of physical energy had ever been a secondary and subordinate consideration to man, and that he rarely selects his home, in the first instance, with any special reference to salubrity and climatic influence. Cupidity and pleasure, in their various ramifications, are potent to induce him to encounter danger and immediate physical discomfort, and are more powerful than the apprehension of death or the considerations conducive to the preservation of health. Hence, in the pursuit of wealth, he will brave the pestilential swamps of Java, the malarial exhalations of the Gold Coast and the Spanish Main, the impure atmosphere of the mine, and the poisonous air of the overcrowded workshops and centres of great cities." (*Loc. cit.*, p. vi.) There is a great deal more, quite as true and as opportunely said, which we heartily commend to the attention of medical and of general readers; and we would that the sound sense and timely warnings of the author might have a wide and lasting influence. We would gladly quote more from these truly valuable pages; but, not unduly to lengthen this article, will be contented with again confidently recommending them to all who can appreciate such labor and research.

There is some careless writing, and some misprints appear, and one of these latter—as we take it to be—on the second page of the *Preface*, makes Dr. Toner say "effect" instead of affect, which, of course, he would not voluntarily do, although the blunder has met our eyes before now in the productions of those who thought they knew how to write and speak the English language. On the third page of the *Preface*, the following sentence seems to be somewhat jumbled, although its meaning, on careful scrutiny, is sufficiently evident. "These conditions or laws of the ocean of atmosphere in which we live has a depth estimated at 45 miles, and weight of 15 pounds to the square inch, are nearly constant," &c. &c. We suppose the words *and which has*, after "live," have been omitted. In the last line of the same *Preface*, we conclude that the proof-reader is again responsible for making the author speak of a "future addition" instead of edition. These are but trifling blemishes, but they *are* blemishes, and show carelessness and indefensible haste. In the third line only of this same *Preface*, we have "complier," instead of compiler. We wish we could oftener see *begin* instead of *commence*, and *situated* instead of *located*—not only in Dr. Toner's pamphlet, but in the compositions of most writers of our day. Fussy, perhaps—but they look and read better, and more truly belong to the language. One more snarl, and we have done: On page ix. of the Introduction, fourth line from the bottom, "this intermediate strata"—stratum—or these, for "this"—which will you have it? Supplementary snarls: "Santa Fee" looks queer, and so does "Allegheny," persistently—except in the *Dictionary*—for Alleghany. The expression (Introduction, p. xvii.) "the rhododendra grows," is, likewise, in familiar phrase, somewhat mixed. Also (*Loc. cit.*, p. viii.): "These early epidemics were destructive of human life to a degree that amazes the reader, numbering its victims," &c. &c.—*their* victims, we suppose. And here we abandon our fault-finding, and fall back on our reserves of praise.

W. W. M.

The Treatment of Syphilitic Diseases by the Mercurial Vapor Bath. By LANGSTON PARKER, F.R.C.S.L. Compiled from the fifth London Edition by JOHN W. FOYE, M.D. Boston: A. Williams & Co. 1874.

THAT the nature of this work may be understood, we begin by quoting the following note:—"The compiler, in calling the attention of the profession to this work, does not pretend to place before them an original production; but to give a *résumé* of his own experience in the treatment of specific disease by the method revived by the late Mr. Langston Parker, and so ably advocated by Mr. Henry Lee and others, and which, in his own practice, has been attended with the most gratifying results. It consists of a condensed review of the opinions of Drs. Parker and Lee, with observations upon cases which came under their special treatment. So unerring is its success, that I claim it to be the most perfect system for the cure of syphilitic disease known to medicine.—J. W. F."

The first chapter is devoted to a description of the apparatus for fumigation, consisting of a cabinet large enough for the patient to stand or sit, and of the apparatus for generating the vapor. The remaining chapters are from the writings of Mr. Langston Parker and Mr. Henry Lee; they constitute, we presume, the promised *résumé* of Dr. Foye's practice, and go to show the advantages of this form of treatment, which is not new enough to demand an extended discussion.

Conjugal Sins. By A. K. GARDNER, A.M., M.D. Twentieth thousand. New York: G. J. Moulton. 1874. Pp. 240.

WE are willing to give the author credit for the best intentions, but we think he had better have left the subject alone. However decently expressed and however salutary much of the advice may be, we do not think it a proper book to send out broadcast through the country.

BOOKS AND PAMPHLETS RECEIVED.

Treatment of Nervous and Rheumatic Affections by Static Electricity. By Dr. A. Arthesis. Translated from the French by J. H. Etheridge, M.D. Chicago. 1874. Pp. 144.

Relations of Insects to Man. By A. S. Packard, Jr. (Half-Hour Recreations in Natural History.) Boston: Estes & Lauriat. 1874. Pp. 96.

DIGITAL EXPLORATION OF THE FEMALE BLADDER.—In a clinical lecture on Calculus in the Female, Mr. Christopher Heath states (*Medical Times and Gazette*, April 11, 1874) that a method of exploring the female bladder which he has found most useful, in all forms of vesical disorder, is, to pass the finger through the urethra. It is possible, he has found from experience, to pass the forefinger into the urethra and bladder of a woman, with very slight and unimportant laceration of the mucous membrane, and with no permanent incontinence. The patient being put under the influence of an anæsthetic and placed in the lithotomy position, pass a director into the urethra, and drawing this downward with one hand, slip the oiled finger above it, and with a little rotary movement the bladder can be entered without any great difficulty. Sometimes it is better to begin with the little finger, as being smaller, and in one or two cases of contracted urethra, Mr. Heath has been obliged to begin the dilatation with a pair of dressing forceps run along the grooved director. In these latter cases, the dilatation was undertaken as a means of treatment, and with good success. In all cases, the mucous membrane is split beneath the pubes, and there is usually some degree of incontinence for twenty-four hours, but the patient then ordinarily recovers complete control over the bladder.

Boston Medical and Surgical Journal.

Boston: Thursday, May 14, 1874.

We have waited long and patiently, following the course of the hearing of the committee of the legislature on the liquor question, and have watched the spread of the present excitement throughout the country, before expressing an opinion. We have been careful in this respect, because, as our opinion differs from the views of many in this community, we were anxious to see if anything would be advanced to shake it, but our increased experience makes us cling to it only the more strongly. The question cannot be discussed solely from a medical standpoint; its moral aspects are even more important than its purely physical ones, but it comes none the less within the province of the physician, who often has much influence in the formation of public opinion.

There is no doubt that as a nation we are, and always have been, hard drinkers, and what makes it worse, spirit drinkers. Various efforts at reform had for a long time been made with little success, till at last a party in the north called upon the law for assistance, and the Maine Liquor Law was passed. This movement was, no doubt, originally honest, but it has degenerated into a mere pretence for obtaining political power, and has become the cloak for worse vices than even intemperance ever begot. That in the cities the movement has been a failure is too evident for any discussion, but it is claimed that it is otherwise in the smaller towns. To a certain extent, this is true; the traveller may have great difficulty in obtaining a glass of beer, for neither the landlord nor the apothecary will readily disclose his bar-room to a stranger, who may be an informer, or, if in Massachusetts, a State constable, come to seize a few gallons for public appearances, or a few dollars for private profit. With the inhabitant, however, the case is different; we doubt if there be any settlement in New England where he cannot get whatever drink he prefers. Prohibition, always a failure, has become a fraud. Such a state of affairs is monstrously wrong, and our first step must be to inquire how such sorry fruit can have come from a well meant effort at reform. We think it occurred as follows: intemperance had become so great an evil that many who felt called upon by their zeal for humanity to throw all their influence with the new movement voted for prohibition, and took the pledge, though perfectly temperate themselves. Partly from a cooling of their ardor, partly from the cold climate, the hard life and the desire for stimulation, which, as we believe, is natural to man, many of these did

not live up to their obligations, but were too deeply committed to make any open change in their lives. To these are added drunkards, who, overestimating their strength, have taken and then violated the pledge, and have but enough shame left to desire to keep their weakness secret. Public opinion, once formed, is, in small towns, very tyrannical, and none the less so that each man, knowing his own shortcomings, feels called upon to be severe on those of others, lest he be thought indifferent to the cause; just as in the Reign of Terror many who called the loudest for more heads for the guillotine secretly trembled for their own. Though the male inhabitants may almost to a man partake of alcohol more or less frequently, and are well aware of the rottenness of the prohibitory system, the vote in such a town will be strongly in its favor, for few will care to incur the public opprobrium by voting for "free rum," or to run the risk of being denounced from the pulpit of the church as well as from the platform of the lecture room, when they well know that their individual wants will be easily supplied. We need not dwell in detail on the effects of this system, on the loss of self respect and consequent universal suspicion which it entails. We differ entirely from those who allege as a good effect of the law that, if it has not abolished drinking, it has, at least, made it secret, for, to our mind, no spectacle can be so ominous to the future of the race as that presented by States in which there is an overwhelming majority for prohibition, and an equally large one of drinkers.

The error which slipped into the originally good work, and increased till it made it all bad, is that the use of the juice of the grape is in itself a sin, or even a weakness. Our feelings of reverence do not permit us to enter into a discussion with those who tell us that its use is contrary to Scripture as well as to morality; they may believe it if they can. We believe that the vine grows for man's benefit and enjoyment, but that its fruit, like other blessings, may, by abuse, become a curse. We believe that virtue consists in moderation, not in abstinence. It is but too true that many victims of over indulgence cannot trust themselves to observe moderation. To such, total abstinence is the only safety, and we would be among the first to praise their resolution in taking and in keeping the pledge, but we would have them remember that, meritorious as is their course, it is an admission of weakness, not a profession of virtue; that they are the inferiors, not the betters, of those who can enjoy the blessings of Providence without falling into excess. While human nature is what it is, there must be a certain amount of intemperance; the problem before us is to make it as little as possible. This we would do by making spirits very expensive, and the drinks, like beer and light wine, that cheer, but do not madden, very cheap. Above all, and till this is accomplished we have little

hope of reform, we would have moderate drinking recognized as legitimate, and indulgence in it made as public as possible, for we are convinced that a man, with the eyes of his friends and family upon him, will be far more likely to observe moderation than when partaking in secret of what is considered forbidden fruit.

Ever since the last report of the decease of Dr. Livingstone and the rumor that his body was on the way from the unknown regions of Africa to his native land, there have been many who have had doubts as to the demise of the renowned explorer, or, if this event had taken place, as to the identity of the remains with his. The examination of the body made by Sir Wm. Fergusson has resulted in the complete identification of the remains. In 1843, Livingstoue had an encounter with a lion, by which his left humerus was severely injured, and there resulted an ununited fracture of this bone. The last time he was in London, he consulted Sir Wm. Fergusson regarding the condition of the limb. Hence it was evident that if there should be found on *post-mortem* examination the remains of an old ununited fracture of the left humerus the verification of the body would be complete.

In his letter to the *Lancet* of April 18, 1873, Sir Wm. Fergusson writes regarding the examination:—

"In particular, the arms attracted attention. They lay as if placed in ordinary fashion, each down by the side. The skin and tissues under were, on each side, shrunk almost to skeleton bulk, and at a glance, to practised eyes, the state of the left arm was such as to convince every one present who had examined it during life, that the limb was Livingstone's. Exactly in the region of the attachment of the deltoid to the humerus, there were the indications of an oblique fracture. On moving the arm, there were the indications of an ununited fracture. A closer investigation and dissection displayed the false joint which had long ago been so well recognized by those who had examined the arm in former days. I was convinced that the remains of the great traveller lay before us. Thousands of heads with a like large circumference might have been under similar scrutiny; the skeletons of hundreds of thousands might have been so; the humerus in each might have been perfect; if one or both had been broken during life it would have united again in such a manner that a tyro could easily have detected the peculiarity. The condition of ununited fractures in this locality is exceedingly rare. I say this from my personal professional experience, and that such a specimen should have turned up in London from the centre of Africa, excepting in the body of Dr. Livingstone, where it was known by competent authorities to have existed, is beyond human credulity. It must not be supposed that a fracture and new joint of this kind now referred to could have been of recent date or made for a purpose. There were in reality all the indications which the experienced pathologist recognizes as infallible; such as the attenuated condition of

the two great fragments (common under such circumstances), and the semblance of a new joint, but actually there was a small fragment detached from the others which bore out Livingstone's own view that the bones had been 'crunched into splinters.'"

The annual meeting of the Boston Medical Association was held at the rooms of the Massachusetts Medical Society, on Monday, May 4th. The only business transacted was the election of officers for the ensuing year. Dr. C. P. Putnam, was elected Secretary, and Drs. George Hayward, Francis Minot, C. D. Homans, Buckminster Brown and J. Collins Warren were elected members of the Standing Committee. Although we have heard but little during the last few years of the doings of this Association, it is important that its advantages should not be overlooked. The little pamphlet published by the Association contains the code of medical police and the rules and regulations, including a fee-table. The former, though adopted as long ago as 1807, is applicable to the present day, and contains rules for guidance in matters of professional etiquette, which are invaluable as a standard to be adhered to in all doubtful points. The fee-table adopted in 1863 is the one at present in use, and is equally valuable to the members of the Association, both as a guide and as testimony to the fairness of their charges, should any question arise on this point between physician and patient. We need hardly say that it is highly desirable that every member of the Massachusetts Medical Society, residing in Boston, who has not yet joined the Association should not fail to do so. In order to accomplish this, it is necessary to agree to abide by the rules of the Association, and to pay the sum of one dollar to the Secretary, in return for which the new member receives a copy of the rules and regulations.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, April 29 and May 2, 1874.)

Operations were performed in the following cases :—Painful Stump, Sub-lingual Tumor, Nævus, Cyst, Frost-bitten Feet, Fissure of the Lobule of the Ear, Nævus. During the week, Abscess, Double Talipes Equino-varus, Abscess of Thigh, Abscess of Tibia.

Painful Stump—following a railroad injury of the foot two years since, in a man twenty years old. No operation was performed at that time, but the remaining stump resembled that left after a Chopart amputation, and had become ulcerated, preventing him from walking. Dr. Clark amputated at the middle of the leg by the double flap method.

Sub-lingual Tumor—alleged to be of ten years' growth, in a woman twenty-five years old. It increased gradually until six months ago; since then, it had progressed rapidly, and interfered seriously with eating and speaking. It was elastic, fluctuating, and presented a uniformly smooth sur-

face, except where it was deeply adherent; the tongue was pushed up to the palate, and could not be seen when the mouth was opened at its widest. An incision was made through the mucous membrane and fascia covering the growth, which was then enucleated as far as possible by breaking down the lateral adhesions with a director; it was then dragged forwards and dissected from its deepest attachments, which extended nearly to the hyoid bone. The genio-hyo-glossus muscle of the left side laid over the tumor, and required partial division before its removal was effected. The tumor was an encysted one, as large as a duck's egg, evidently congenital, and contained the ordinary sebaceous material, rolled into small balls, found in similar tumors, which not infrequently occur in this locality.

Nævus—in a child three months old. It had an irregular outline, and occupied an area of three by four inches; extending from the pectoral region, upward over the clavicle on to the lower part of the neck. Its central portion projected one third of an inch from the surface, and there were two ulcerated surfaces the size of a cent on the most prominent part, from which there had recently been considerable hæmorrhage. Dr. Gay encircled the growth with an incision, and dissected up the skin involved by the disease for an inch from the circumference toward the centre. He then passed a stout curved needle, threaded with a double ligature, across and beneath the thickest part of the tumor, and strangulated it in two sections.

Cyst—congenital, containing hair and sebaceous matter, situated on the bridge of a boy's nose; large as a grape.

Frost-bitten Feet—in a middle-aged man. He had lost all the toes and a portion of each foot by the sloughing which followed. The stumps were granulating, but the metatarsal bones were necrosed and partially exposed. Dr. Clark performed Hey's operation on the left foot and Chopart's on the right.

Fissure—of the lobule of a woman's ear, from the tearing out of an ear-ring. The fissure was included in a V-shaped incision, and the raw surfaces united by fine sutures.

Nævus—congenital on the forehead of a baby ten months old. It was surrounded by an incision through the skin, from which four other incisions were made to radiate; the skin between the latter was dissected up in flaps to expose the underlying disease. The nævus was then strangulated in four sections by passing two double ligatures in opposite directions.

Abscess—in the cavity of the tunica vaginalis, with some sloughing of the latter, in an adult, following a puncture for hydrocele, ten days before he entered the hospital. The scrotum was distended to the size of a child's head. Free incisions into the tunica vaginalis evacuated a large quantity of foul-smelling pus and disclosed considerable slough.

Talipes Equino-varus—double, in a child six months old. Tenotomy of the tendo-Achillis in both feet.

Abscess—external to the capsular ligament, situated over the external condyle of the femur, in a young man, following a blow received during a fall one week since. Opened.

Abscess—of the tibia, in a boy sixteen years old. He had suffered more or less for the past eight years from pain in the upper and anterior part of the leg. During that time, the tibia had enlarged from the malleoli to the tuberosities. Dr. Clark made an incision down to the bone, and perforated its anterior surface with a trephine; on reaching the medullary cavity, about a drachm and a half of pus was found, but no loose bone.

H. H. A. Beach.

BOSTON CITY HOSPITAL.

The following surgical operations were performed last Friday, May 8th:—

1. *Talipes Varus.*—Dr. Ingalls.
2. *Enucleation of Eye.*—A woman, aged thirty-two, was struck, fourteen

years ago, by a fist, in the eye; opacity and disorganization of the lens followed, with a moderate anterior staphyloma. This latter she wished removed, in order to have an artificial eye fitted. In making the incision for removing the anterior portion, a bony mass, reaching forward from the posterior chamber, was struck, and the operation was then changed to that for enucleation, which was done, "leaving as much of the conjunctiva as possible." A calcareous formation was found in the posterior chamber, of an irregular octohedral shape, one half, five eighths, and three fourths of an inch in diameter in different directions, and nearly filling it. There was a cavity, smaller than a pea, in its anterior part behind the lens, and it was pierced from behind forwards by a small canal; otherwise it was solid. It was easily turned out from the sclerotic, the choroid adhering to its surface. Dr. Williams remarked that concretions of the lens were common enough, as well as thin shells of bone in the choroid, but he did not recollect having seen before a solid growth of bone in the eye as large and thick as this. He had hoped at first to remove only the anterior part of the eye, as that would have given a better and more movable stump for the artificial one, but he did not think it safe to stitch in such a growth as this, since it would probably have suppurated and endangered the other eye.

3. *Convergent Strabismus*—in a young woman. Both eyes operated upon. Dr. Williams said that when there was more than three lines of inward deviation, it was best to cut both eyes, as it would have to be done sooner or later.

4. *Convergent Strabismus*—child, both eyes. Dr. Williams.

5. During the week, *Talipes Equinus*—child, both feet. Dr. Homans.

W. P. BOLLES.

Correspondence.

LETTER FROM RUSTICUS.

DOWN EAST, May 7, 1874.

MESSRS. EDITORS,—This is so bad a season that I have not had time before now to say a word in reply to Dr. Non Omnes Omnia. I am very sorry to have in any way disturbed him; for, from the tone of his letter, I think that he is either quite young in practice or that he belongs to the second class of which I intend to speak. If he is one of the latter, and is also very young, let me advise him not to neglect general medicine and diagnosis, until he has become fairly established. The general practice and the specialty can well go hand in hand, and will help each other over a good many of the rough spots. Very many of the specialists, so called, from the time of beginning schoolwork, never paid attention to anything aside from their particular goal, except in so far as they were compelled to by fear that examination might cause them to slip up.

Please, Dr. Omnia, look over that list of which you wrote, on the last page of the JOURNAL, and see what course the older ones took. All general practitioners from Jackson down. Speaking of him, those of us who remember him, and who thank Heaven that he escaped a watery grave, remember him as a general practitioner and a hospital physician. And so with the others. As for the younger ones, I cannot say much about them; they were long after my day.

This much I know very well; that general practitioners, who become specialists from being forced by circumstances to become such, are the best specialists. Some of the others may get to be their equals, but they are not very likely to. Take the *typical*, of whom I wrote. Dr. Speculum stands very high in the estimation of the public, and many members of the profession look on him as a great man. As Doctor Omnia says, he is a "dishonest man." Dr. Cutis is a "dishonest man." Dr. Rectum is a "dishonest man." But they are not only specialists and dishonest men, but they are facts.

I could point out numerous cases of injury to patients by special practitioners. For every case of injury done by one who began as a general practitioner, I could point out ten by those who were always specialists.

There are three sets of specialty practitioners whom I know of. The first and best of these are the men who began life as general practitioners, and who found their business gradually, almost imperceptibly, becoming special. The next best on the list are a set of industrious students; gentlemen, who, during their course of preparatory study, worked up every branch, as far as was in their power, but, after graduation, perhaps as a matter of taste, took up a single branch, and avoided others. These men, in my opinion, made a mistake, and their errors in practice are more numerous than those of the former. The third class is a mixed up set. It is composed of two varieties. A part of them intended to practise as specialists from the beginning, and to charge large fees. They ram in the speculum, whenever consulted. They poke up the caustic, wherever the speculum goes. They either look mysteriously at the patient, and say but very few words, or they talk wisely, and tell of their numerous cures where others have failed.

The other variety of this class is made up of men who have been disappointed in their general practice; men who were never fit for physicians, and who don't understand as well as others do why they haven't got business. They are very apt to have faith in their own immense powers, but somehow they don't succeed. They are very apt to become sour; very apt to talk a little unkindly, if not with sneers, about men of their own age, or younger, who have happened to succeed better than they. Admiring the success of the other variety of their class, they make up their minds to be specialists, and, as a rule, care nothing for professional etiquette or professional honor, but go for money.

Now, Doctor Omnia, we country fellows don't know always how to manage about these specialists. This we do know, that many of class number three, both varieties, exist in Boston and New York. We know that they attend your Society meetings; that they do a great deal of talking; that they report numerous cases and cures; and that you don't dispute, and don't snub them, but let them talk and let them report. "I think you're rather running this specialty business into the ground. You're overdoing it, I think."

Yours truly, RUSTICUS.

SEQUELÆ OF CEREBRO-SPINAL MENINGITIS.

OTTAWA, KANSAS, April 27, 1874.

MESSRS. EDITORS,—Though I have taken your JOURNAL for a quarter of a century, I have not heretofore bothered you with any communications, but I wish now to present to you the case of my son, and obtain from you or your correspondents, through your pages, some suggestions as to treatment. He is six feet, fairly proportioned, and, until 1865, in his nineteenth year, was very robust and of great physical power. In that year, a scourge of cerebro-spinal meningitis visited our county. He was among the few who survived. The attack was slight, and he did not take his bed, but spent most of two or three months in a reclining position or lying down at full length. Pain very severe in the entire head. Compared it to sawing the cranium all around above the ears, and then trying to lift it off by the hair. Pain in the small of the back and in calves of legs. Could not lie on his face to rest himself. Said it seemed, when he did so, as if the spine would be broken by some great weight. Could scarcely stoop over and raise himself. Gradually grew better. Since that, he taught at intervals two or three years. Studied, and is now practising law. Present condition.—Thin; weight, 160; has lost, last year, more than half the hair on the crown of his head; weakness of the eyes; spots floating before his vision; eye clear. These symptoms, apparently, only due to weakness of the optic nerve. Extremely nervous, so much so that he cannot use coffee at all. Feet cold, except in warm weather. Occasionally, a momentary loss of mental power. Brief seasons, once in two months per-

haps, when the whole physical system seems to give way; prostration so great as to make lifting the hand labor. This lasts but a few minutes, comes and goes without warning. In the summer of 1867, took strychnine with marked good, but subsequent sedentary habits and mental effort seemed to dissipate it. More or less pain in the head and back every day. What would be the propriety of sun baths? How taken? Should the head be exposed? How get best effects of strychnia? Combined or alone? With some form of phosphorus? Any other treatment? What probability that he will recover? Any information or suggestion will confer very great favor.

Yours fraternally, J. E. MECHEM.

It is entirely contrary to rule for us to prescribe or to express any opinion on cases submitted to us in this manner; but we shall be happy to publish any remarks or suggestions that our readers may make concerning this case.—EDITORS.

Medical Miscellany.

CREMATION.—In Zurich, the number of subscribers to the society for cremation exceeds already 400 individuals, and preparations are making to establish without delay a furnace.

FORMULA FOR SYRUP OF PEPSIN.—℞. Powdered pepsin, 256 grains; muriatic acid, 1 drachm; syrup of orange flower water, 16 ounces. Mix.—*Druggists' Circular.*

NEW JERSEY MEDICAL SOCIETY.—This Society will hold its one hundred and eighth annual meeting in the Mansion House, at Long Branch, on Tuesday, May 26th, at 7½ o'clock, P.M.

TASTE and appetite are sent before, and committed to the tongue and stomach, for the dignotion of food, by which both the quality and quantity is judged.—*Culpeper*, 1656.

TREATMENT OF BURNS.—White-lead paint has proved, at the Roosevelt Hospital, a satisfactory material for the dressing of burns, and is recommended as much more cleanly than carron oil. It is mixed as for painting, only somewhat thicker, and is applied with a brush.

MEDICAL LEGISLATION.—A law has recently been passed by the Kentucky legislature, requiring all who undertake to prescribe for the sick to have graduated at a duly chartered medical college, or else to obtain proper credentials from one of the State Boards of Medical Examiners.

TRICHINOSIS.—In Lissa, five members of a single family were recently attacked with trichinosis after partaking of a ham, which, it was said, had been pickled, smoked, and boiled for two hours. Further examination revealed the fact that the remainder of the carcass of the animal, from which the ham had been taken, was filled with trichinæ.

IMPRISONMENT FOR ALLEGED MALPRACTICE.—In Insterburg (Prussia), a regular physician was recently condemned to imprisonment for one year on the charge of malpractice in a case of childbirth, where, it is alleged, the death of the child was occasioned by the negligence of the *accoucheur*. The details of the trial have not yet appeared in our Prussian exchanges.

J. B. BRADBURY, M.D. *(British Medical Journal)*, states that the most efficacious remedy in hay fever, as far as his experience goes, is the application, by means of a camel's-hair brush, of tincture of opium to the interior of the nose. He can also recommend the internal administration of arsenic. He also suggests that a strong solution of camphor, frequently and for some time snuffed up the nose in the early stage of coryza, may be of some value, depending on the power of the camphor to destroy the low organisms which are said to produce hay fever.

INDIGESTION EXTRAORDINARY.—At a late meeting of the Richmond Academy of Medicine, Dr. W. W. Parker mentioned the case of a woman who applied to him on account of a difficulty in swallowing, especially fluids. He prescribed for her relief an emetic, the action of which brought up about a pint of mucus, and a piece of chicken skin several inches long, which must have been in the stomach for two weeks, inasmuch as she had eaten no chicken for that length of time.

HYDROPHOBIA FROM THE BITE OF A CAT.—The *Lancet* reports two fatal cases of hydrophobia. One case was that of a servant, aged thirty-two years; the cat attacked her, fastening upon the hand, and was dislodged with difficulty. The animal attacked a man on the day following, wounding him. The woman was seized with hydrophobia after three months, and died after two days of illness; the man fell sick soon after the injury, and also died.

BONE SCRAPING IN THE SOUTH SEA ISLANDS.—A correspondent of the *Medical Times* writes that a notion prevails there that headache, neuralgia, vertigo and other cerebral affections proceed from a crack in the head, or pressure of the skull on the brain. The remedy is to lay open the scalp, and then scrape the cranium carefully and gently, until a hole is made in the skull, about the size of a crown-piece, extending to the dura mater. Sometimes this scraping process involves an injury of the pia mater, and death is the consequence. In the best of hands, about half of those who undergo the operation die from it; yet this barbarous custom, from superstition and fashion, has been so prevalent that very few of the male adults are without this hole in the cranium, or "have a shingle loose," to use an Australian phrase.—*London Medical Record.*

ESSEX NORTH DISTRICT MEDICAL SOCIETY.—The following officers were elected at the annual meeting, of which we shall shortly publish a more extended report:—

President.—Dr. William Cogswell, of Bradford.
Vice President.—Dr. F. A. Howe, of Newburyport.
Secretary and Treasurer.—Dr. Geo. W. Snow, of Newburyport.
Corresponding Secretary.—Dr. John Crowell, of Haverhill.
Librarian.—Dr. M. C. Towle, of Haverhill.
Commissioner on Trials.—Dr. W. H. Kimball, of Andover.
Councillors.—Drs. J. E. Howe, Haverhill; C. W. Chamberlain, Lawrence; D. Dana, Lawrence; W. H. Kimball, Andover; J. Crowell, Haverhill; E. P. Hurd, Newburyport; J. A. Douglass, Amesbury.
Censors.—C. G. Carleton, Lawrence; L. C. Howe, Haverhill; O. Warren, West Newbury; O. H. Johnson, Haverhill; E. S. Yates, Lawrence.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending May 2, 1874.*

Boston, 156; Worcester, 20; Lowell, 19; Milford, 5; Chelsea, 3; Cambridge, 17; Salem, 6; Lawrence, 8; Springfield, 14; Lynn, 6; Fitchburg, 3; Newburyport, 6; Somerville, 12; Fall River, 11; Haverhill, 5; Holyoke, 5; Pittsfield, 8. Total, 304.

Prevalent Diseases.—Consumption, 50; pneumonia, 40; scarlet fever, 18.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 9th, 143. Males, 71; females, 72. Accident, 3; apoplexy, 2; aneurism, 1; anæmia, 2; inflammation of the bowels, 3; disease of the bladder, 1; bronchitis, 6; disease of the brain, 5; cancer, 2; cholera infantum, 1; cyanosis, 1; consumption, 25; convulsions, 3; croup, 1; debility, 2; dropsy of the brain, 5; dysentery, 1; dyspepsia, 1; erysipelas, 2; scarlet fever, 10; typhoid fever, 4; disease of the heart, 7; insanity, 1; intemperance, 1; disease of the kidneys, 1; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 16; malformation, 1; marasmus, 5; old age, 7; paralysis, 2; pleurisy, 1; premature birth, 3; puerperal disease, 1; pyæmia, 1; suicide, 1; disease of the spine, 1; teething, 1; tumor, 2; whooping cough, 6; unknown, 1.

Under 5 years of age, 57; between 5 and 20 years, 10; between 20 and 40 years, 23; between 40 and 60 years, 27; over 60 years, 26. Born in the United States, 100; Ireland, 30; other places, 13.

THE

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Original Communications.

THE INFLUENCE OF ANÆSTHETICS ON THE VASO-MOTOR CENTRES.*

By H. P. BOWDITCH, M.D.,

Assistant Professor of Physiology in Harvard University,

And CHARLES SEDGWICK MINOT, B.S.

THE experiments reported in this paper were undertaken with the hope of contributing to our knowledge of the physiological action of anæsthetics by investigating the effect of these agents on certain nervous processes, which find their expression in changes of the arterial blood tension. The anæsthetic used in most of the experiments was sulphuric ether, but, for the sake of comparison, experiments with chloroform were also instituted.

As far as regards their power to produce insensibility to pain, anæsthetics may be regarded as antagonizing the effects of irritation of sensitive nerves. It is interesting, therefore, to inquire how far this antagonism extends to *other* effects of the same irritation. One of the most constant physiological results of irritation of a sensitive nerve is a rise of arterial blood tension, due to a reflex stimulation, through the vaso-motor centres of the muscular walls of the smaller arteries, especially those of the intestines. This phenomenon is so constant that its occurrence has been used as a test for the integrity of sensitive nerves, and a method of investigating the course of sensitive nerve fibres in the spinal cord has been founded upon it.†

Our first object was to determine the effect of anæsthesia on this reflex rise of blood tension. Since the contraction, reflex or voluntary, of the muscles of the trunk and limbs causes great irregularities in the blood tension, the phenomenon in question can be properly observed only when the possibility of such contraction is excluded. This can be most conveniently and effectually done by paralyzing the animal with curare, and keeping up life by artificial respiration. The experiments were, therefore, performed as follows. The animal (in most cases a dog) was confined upon the operating table in a supine position, and a dose of curare (varying, with the size of the animal, from two to ten cc. of a one-half per cent. solution) was injected into the external jugular vein. As soon as the respiratory movements ceased, the trachea was connected by means of a glass canula inserted into it with the apparatus for artificial respiration, which was so adjusted as to

* Read before the Boston Society of Medical Sciences, February 24, 1874.

† Miescher. Zur Frage der sensiblen Leitung im Rückenmark. Ludwig's Arbeiten. 1870. Page 172.

imitate as closely as possible the normal respiratory rhythm. A canula was then placed in the carotid artery and connected with a mercury manometer carrying a pen, by means of which the blood tension was recorded on a long strip of paper, which was kept in uniform motion by clockwork. (The rate at which the paper moved was recorded by means of a pendulum, which broke an electrical circuit once a second, and thus, through an electro-magnet, moved a pen which wrote upon the surface of the paper.)

The saphena nerve was then exposed and placed upon electrodes connected with the secondary coil of a Du Bois-Reymond induction apparatus, the primary current of which was supplied by one Grove cell. The irritation of the nerve was produced by closing the primary circuit by means of a key provided with a pen, which also wrote upon the paper directly under the pen recording the blood tension. The duration and the effect of the irritation could therefore be seen at a glance.

After determining the effect on the blood-tension of irritation of the saphena nerve, which was invariably a rise, amounting, usually, to from thirty to sixty mm. of mercury, the tube of the respiration apparatus was connected with a bottle containing ether, in such a way that the air was forced into the lungs of the animal, mixed with the vapor of the anæsthetic. After the ether had been administered in this way for several minutes, the saphena nerve was again irritated, and the effect noted. The ether was then removed, the animal allowed to breathe pure air, and the nerve once more irritated in order to determine, by comparison with the effect of the first irritation, whether the nerve still retained its irritability. Between the periods of irritation, the nerve was removed from the electrodes and restored to its position amongst the tissues of the limb. One great obstacle to the successful performance of this experiment was the impossibility of determining when a sufficient amount of ether had been given to produce anæsthesia, and when the effects of ether had been removed by breathing pure air; for the relaxation of the muscles, the usual sign of complete anæsthesia, had already been produced by the curare. The want of constancy in the results, to be attributed, in part perhaps, to this difficulty, renders it undesirable to give minute details of the experiments. Suffice it to say that in the majority of cases the rise of blood tension consequent upon the irritation of the saphena nerve was less marked when the animal was under the influence of ether than when the anæsthetic was not used. Frequently, no great difference could be observed, and in one or two instances, especially at the beginning of the ether inhalation, the irritation of the nerve caused a more decided rise of tension than without the ether. Subsequent irritations, however, had generally a diminished effect, showing that, in this respect, the influence of ether developes itself slowly, and is, perhaps, preceded by a period of stimulation. These effects are shown by the curves represented in figures 1 to 11 inclusive.* These curves are traced directly from the records of the manometer, and, in studying them, it must be borne in mind that, owing to the mercury descending in one leg of the manometer as it rises in the other, the recorded variations of blood-tension are only one-half the absolute variations. The curves are drawn from right to left, and the horizontal lines under

* See explanation of figures at end of article.

them indicate the time during which the irritation was applied to the nerve. The numbers over the horizontal lines indicate the intensity of the irritation in arbitrary units of the Du Bois-Reymond induction apparatus,* one Grove cell supplying the electrical current. The vertical column of figures on the right of each curve is a scale giving the absolute blood-tension in millimetres of mercury.

Far more constant were the results obtained by the use of chloroform. Our experiments with this agent were not so numerous as those with ether, but the uniformity was sufficiently great to justify a conclusion as to its action. It was invariably found that, when an animal was under the influence of chloroform, irritation of the saphena nerve caused a much less marked rise of blood-tension than when the anæsthetic was not used. Sometimes there was absolutely no rise of tension to be observed, while at other times the rise was from one-third to one-half that produced by the same irritation on an animal not subjected to the action of chloroform. This effect is shown by the figures 12 to 15 inclusive, which represent the results of irritations of the saphena nerve made alternately with and without chloroform.

Now when the intensity of any reflex phenomenon is affected by the action of a drug, or any other external agency, this *may* take place in three different ways, viz.: through a change of irritability, either of the afferent or of the efferent nerves involved, or of the nervous centres through which the action takes place. It is, therefore, of interest to inquire in which of these three different possible ways chloroform diminishes the reflex contraction of the bloodvessels consequent upon the irritation of sensitive nerves. This can only be determined by experiments in which one or the other of these three possibilities can be excluded.

Now it was shown by Nawalichin† that compression of the two carotid arteries causes a great increase of blood-tension, due to an irritation of the vaso-motor centres, produced by the diminished supply of blood sent to them. Our next object was, therefore, to determine how a rise of blood-tension produced in this way is affected by chloroform inhalation. For this purpose, a dog was curarized, and kept alive by artificial respiration. The mercury manometer was connected with the crural artery, and the blood-tension recorded in the manner above described. The two carotid arteries were then exposed, and a thread placed loosely around each. At a given signal, the two threads were raised simultaneously, stopping the flow of blood through the arteries, and causing a very decided rise of blood-tension. Chloroform was then given, as in the former experiments, and the arteries again compressed. Little or no rise of blood-tension was now observed. This result is shown in figures 16 and 17, where the effects of compression of the carotids, both with and without chloroform, are given. Unfortunately, only one experiment of this sort was performed, but the result was so marked that we may fairly conclude that the rise of blood-tension due to anæmia of the vaso-motor centres may be prevented by the inhalation of chloroform. Here the effect of the anæsthetic must be to produce a diminished irritability, either of the vaso-motor centres or of the vaso-motor nerves, the third possibility above mentioned, viz., the diminished irritability of the sensitive nerves being, of course, excluded. It is, therefore, a reasonable inference,

* The maximum intensity, i.e., with coils pushed together, being indicated by 1000.
† Centralblatt für medicinische Wissenschaften. 1870. Page 483.

in those cases where chloroform was found to diminish the reflex contraction of the bloodvessels, that this effect was due not to any influence upon the sensitive nerves, but to a diminished irritability either of the vaso-motor centres or of the vaso-motor nerves. Which of these two possibilities is the more probable is a question on which the observations of Scheinesson* throw light. This observer found that, when an animal was under the influence of chloroform, no unusually strong irritation of the cervical sympathetic was necessary in order to cause a contraction of the vessels of the ear. In other words, the vaso-motor nerves had, under chloroform, preserved completely their normal functions. If, therefore, chloroform does not diminish the irritability of the vaso-motor nerves, then the effect of this anæsthetic in checking the rise of blood-tension consequent upon compression of the carotids or irritation of sensitive nerves, must be due to a diminished irritability of the vaso-motor centres.

Another very frequent, though not absolutely constant result of irritation of sensitive nerves, is a diminished frequency of the heart-beats. This diminution begins usually soon after the blood-tension has reached its maximum, and continues often 20″ or 30″ after the irritation has ceased and the blood-tension has returned to its normal level. A slight and temporary acceleration of the heart-beats, coincident with the rise of blood-tension, not infrequently precedes this retardation. That this phenomenon is due to the influence of the vagus nerves on the heart is evident from the fact that after the section of these nerves no such result is produced. This is proved by the tracings represented in figures 18 and 19, showing the effects on the blood-tension and on the rate of the heart-beats of two irritations of the saphena nerve of equal intensity, applied one before and the other after section of the vagus nerves. It will be seen that after the section, though the blood-tension rises in consequence of the irritation of the sensitive nerves, the retardation of the heart-beats is absent. This retardation must, therefore, be due to an influence proceeding from the vagus centres along the vagus nerves to the heart. Whether this stimulation of the vagus centres is a direct effect of the irritation of sensitive nerves, or an indirect effect, consequent upon the rise of blood-tension, need not at present concern us. Our next object was to determine the effect of anæsthetics on this reflex irritation of the vagus nerve. The experiments performed for this purpose were the same as those for determining the effect of anæsthetics on the reflex rise of blood-tension, for the quicksilver manometer records the heart-beats, as well as the blood-tension. It must be borne in mind, however, that the reflex rise of blood-tension is a far more constant phenomenon than the reflex retardation of the heart-beats, so that only a small proportion of the experiments made were available for the study of the latter question. The results of these experiments were not perfectly constant, but in the large majority of cases it was found that the inhalation of ether prevented the reflex retardation of the heart-beats from manifesting itself. In several cases, the irritation of the sensitive nerve caused a decided acceleration of the heart, the temporary and slight acceleration above alluded to as often occurring without ether, becoming under ether a more marked and prolonged effect. This is to be seen in Figs. 20 to 22 in-

* Centralblatt für medicinische Wissenschaften. 1869. Page 506.

clusive, showing the effect of irritation of the saphena nerve before, during and after ether inhalation.

The experiments with chloroform were not conclusive, inasmuch as the phenomenon in question did not manifest itself distinctly in the cases where this anæsthetic was employed.

Our experiments enabled us to study the direct effect of chloroform and ether on the normal blood-tension and pulse rate, though this was not the object with which they were undertaken. In regard to the effect on the blood-tension, a great difference was noticed in the two anæsthetics. While the inhalation of chloroform caused, invariably, a decided depression of the blood-tension, varying in the different observations from 8 to 37 mm. of mercury; ether, on the contrary, caused, in the majority of instances, a marked rise of tension, varying from 9 to 51 mm. of mercury, and in those cases where the tension seemed to be lowered by ether, this depression was never greater than 6 mm. of mercury. This same difference between the two anæsthetics was observed by the committee appointed by the Royal Medical and Chirurgical Society to inquire into the uses and the physiological, therapeutical and toxical effects of chloroform.* The conclusion of the committee, however, that the diminished blood-tension under chloroform is due to an enfeebled action of the heart, cannot be accepted as expressing the whole truth, for a lowered blood-tension may also be caused by a diminished activity of the vaso-motor centres, and the experiments of Scheinesson above referred to render it probable that chloroform acts in both of these ways.

No positive conclusions as to the effect of anæsthetics on the pulse rate can be drawn from our experiments. Chloroform caused, in some cases, an acceleration, in others a retardation of the pulse. The effect of ether was likewise variable. The recorded observations of Scheinesson and of the committee of the Medical and Chirurgical Society are also at variance with each other on this point. The question can only be settled by new investigations directed particularly to this subject.

In experiments like those above described, where the effects of successive nervous irritations are to be compared, it is, of course, of the greatest importance that the method of stimulation should be such as to secure the greatest possible uniformity. The Grove's element, and the sliding induction coil of Du Bois-Reymond, leave nothing to be desired as far as constancy and convenience in the production of electricity are concerned; but, in the application of the electrodes to the nerve, certain difficulties are met with. If the nerve is allowed to lie upon the electrodes during the interval, often several minutes in duration, between two successive irritations, there is great danger of its losing its irritability by drying and stretching. On the other hand, if the nerve is removed from the electrodes and restored to its normal position among the tissues, it is impossible to replace it upon the electrodes with perfect certainty that it rests upon them in precisely the same way as during the previous irritation. Of these two sources of error, the latter is probably the lesser, and the nerve was accordingly in our experiments always restored to its place among the tissues between each two irritations. In view, however, of the difficulties inherent in this method of experimenting, it would be unwise to regard as conclusive any results except those of the most positive kind.

* Medico-Chirurgical Transactions, vol. 47, p. 323. London. 1864.

We must, therefore, content ourselves with presenting the following conclusions, as possessing, at most, only a high degree of probability:

I. Chloroform inhalation lowers the reflex irritability of the vaso-motor centres, thus diminishing the power of an irritation of sensitive nerves to cause a rise of blood-tension.

II. Ether acts, if it acts at all, much less powerfully, in this respect, than chloroform.

In other words, while ether and chloroform resemble each other in their effect on those nervous centres whose activity is connected with the conscious perception of pain, the latter acts much more strongly than the former upon those centres which regulate the arterial blood-tension, and thus affects profoundly the conditions of animal life. Ether and chloroform are, therefore, both anæsthetics, but chloroform is, also, something more.

To complete this study of the comparative action of ether and chloroform, many other experiments are needed, both to confirm the results already reached, and to settle new questions arising in the course of the investigation. The subject would not be presented in its present imperfect form, were it not that the departure of one of us for Europe has made it necessary to interrupt, for the present, the series of experiments.

EXPLANATION OF FIGURES.

Figs. 1 to 11 inclusive show the effect of ether inhalation on the rise of blood-tension, caused by irritation of sensitive nerves.

Fig. 1, before ether inhalation.

Fig. 2, after 2′15″ ether inhalation.

Fig. 3, after 4′20″ ether inhalation.

Fig. 4, 4′40″ after removal of ether.

Fig. 5, after 5′ ether inhalation.

Fig. 6, after 8′ ether inhalation.

Fig. 7, 6′ after removal of ether.

Fig. 8, before ether inhalation.

Fig. 9, after 4′40″ ether inhalation.

Fig. 10, after 10′30″ ether inhalation.

Fig. 11, 5′40″ after removal of ether.

Figs. 12 to 15 inclusive show the effect of chloroform inhalation on the rise of blood-tension, caused by irritation of sensitive nerves.

Fig. 12, before chloroform inhalation.

Fig. 13, after 3′ chloroform inhalation.

Fig. 14, 3′45″ after removal of chloroform.

Fig. 15, after 3′30″ chloroform inhalation.

Figs. 16 and 17 show the effect of chloroform on the rise of blood-tension caused by compression of the carotid arteries.

Fig. 16, without chloroform.

Fig. 17, during chloroform inhalation.

Figs. 18 and 19 show the effect of section of the vagus nerves on the changes of pulse-rate caused by irritation of sensitive nerves.

Fig. 18, before section of vagus nerves.

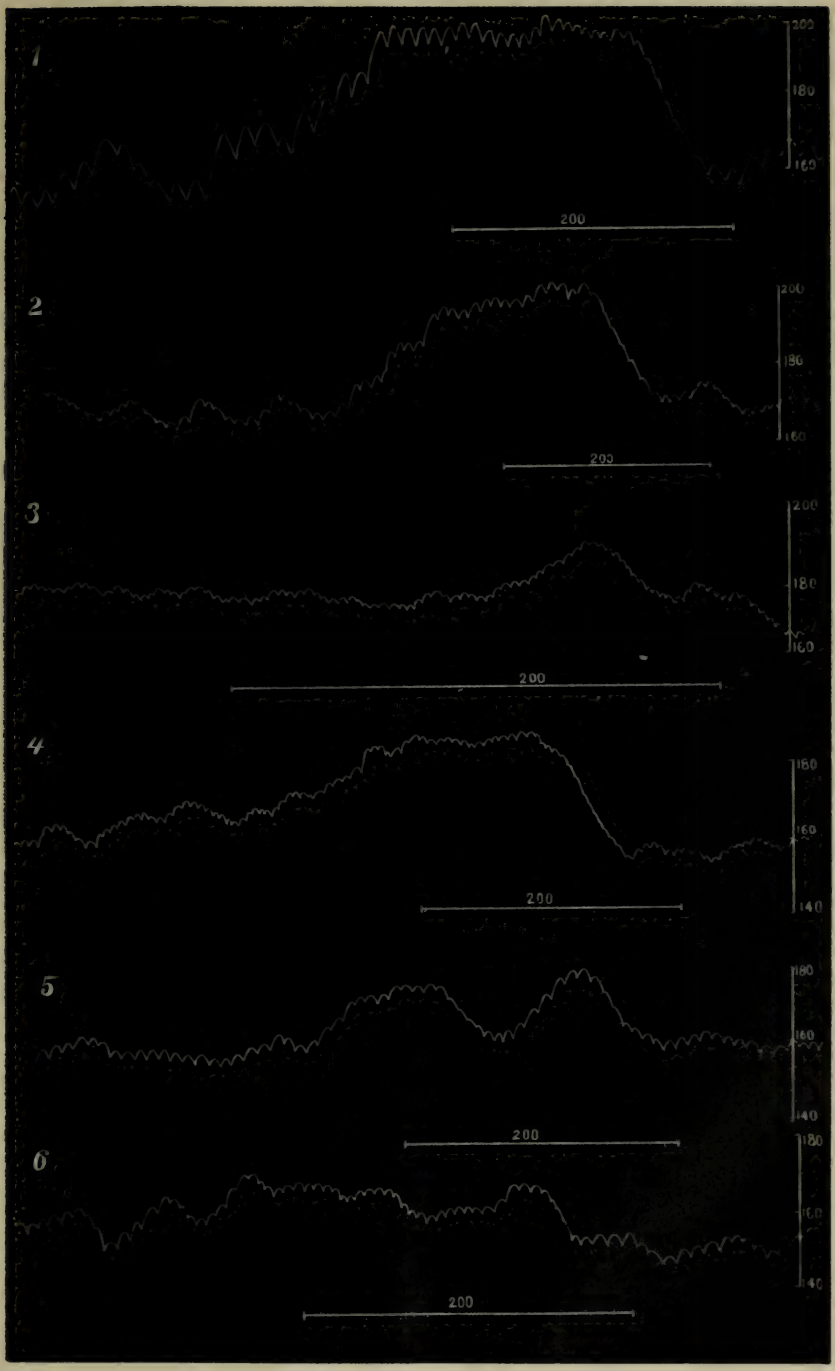
Fig. 19, after section of vagus nerves.

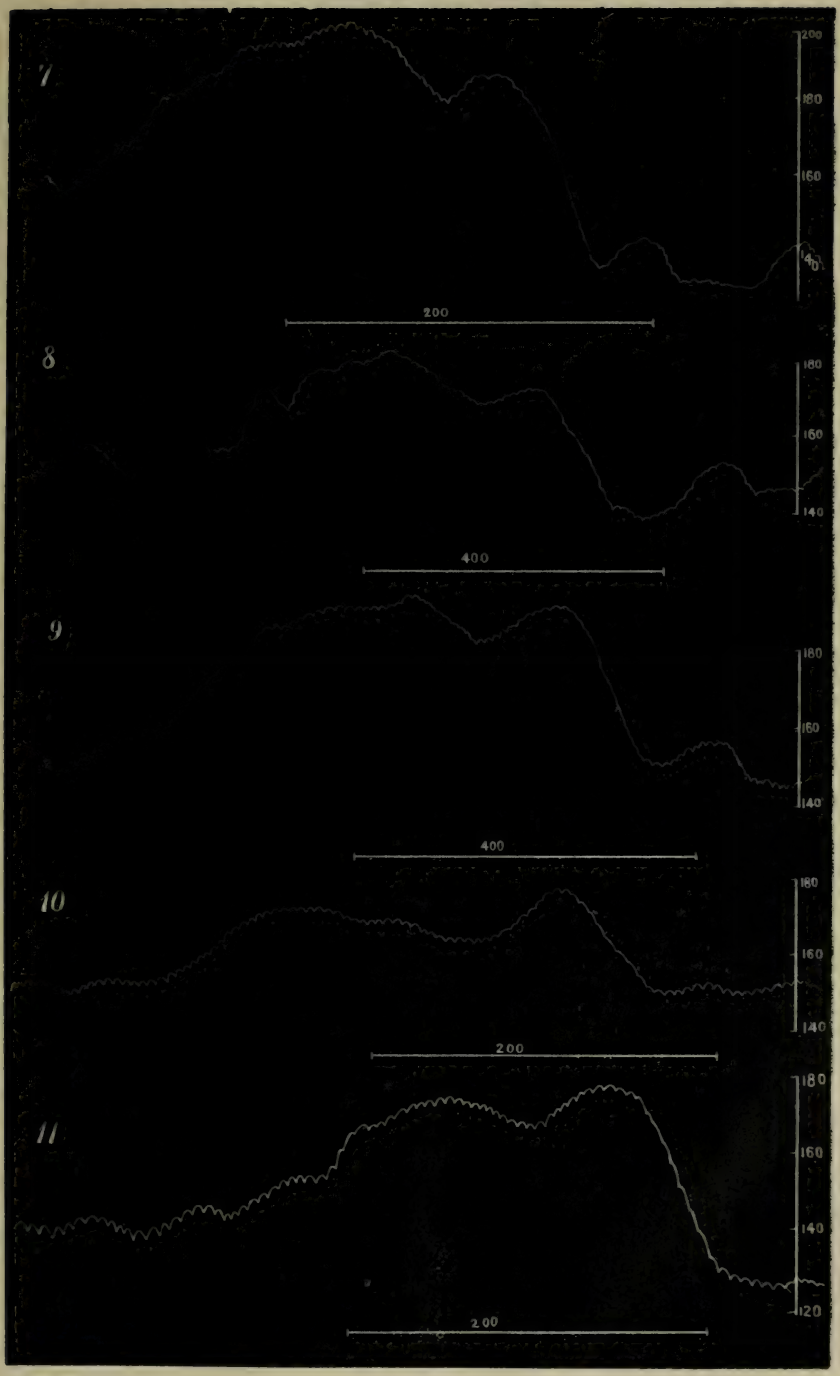
Figs. 20 to 22 inclusive show the effect of ether inhalation on the changes of pulse-rate caused by irritation of sensitive nerves.

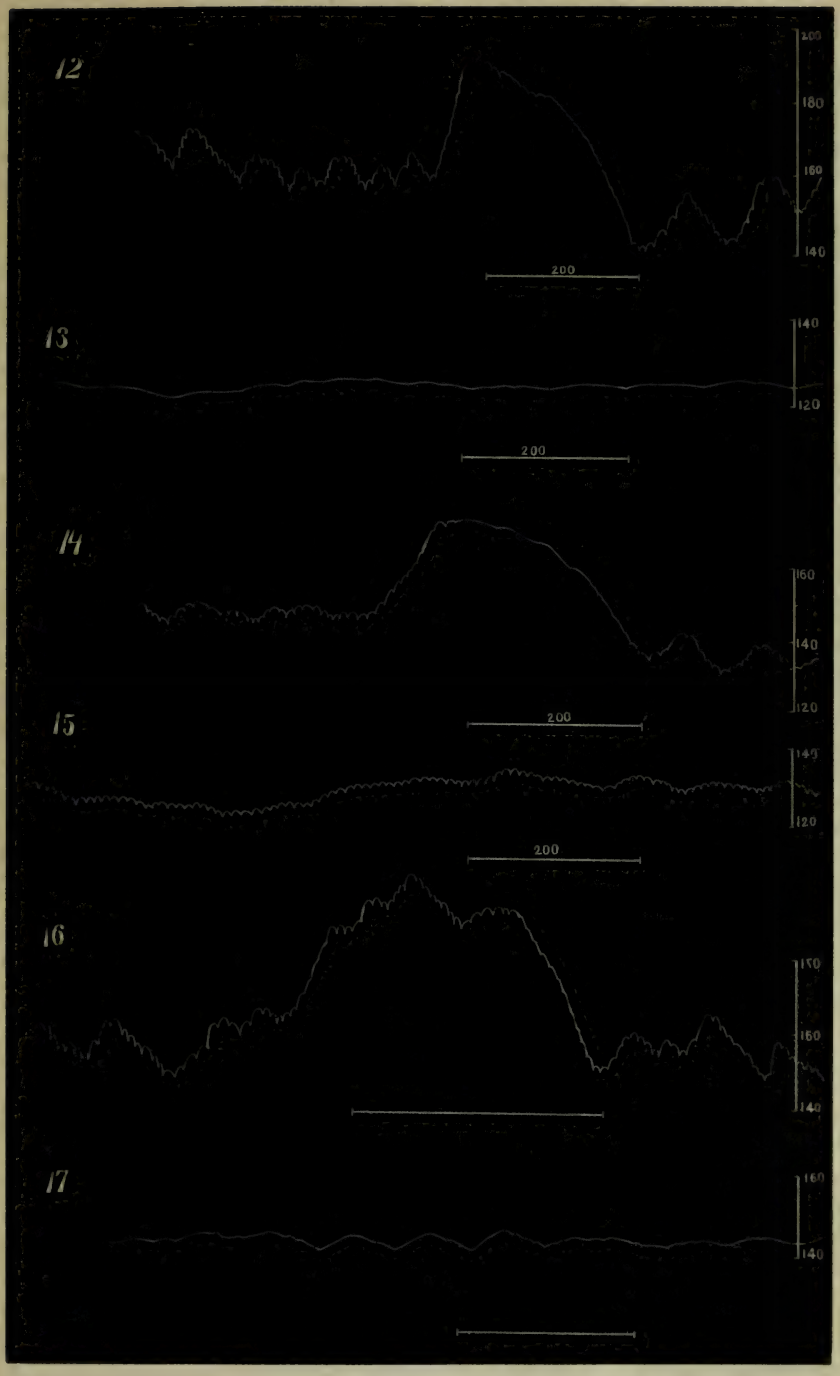
Fig. 20, before ether inhalation.

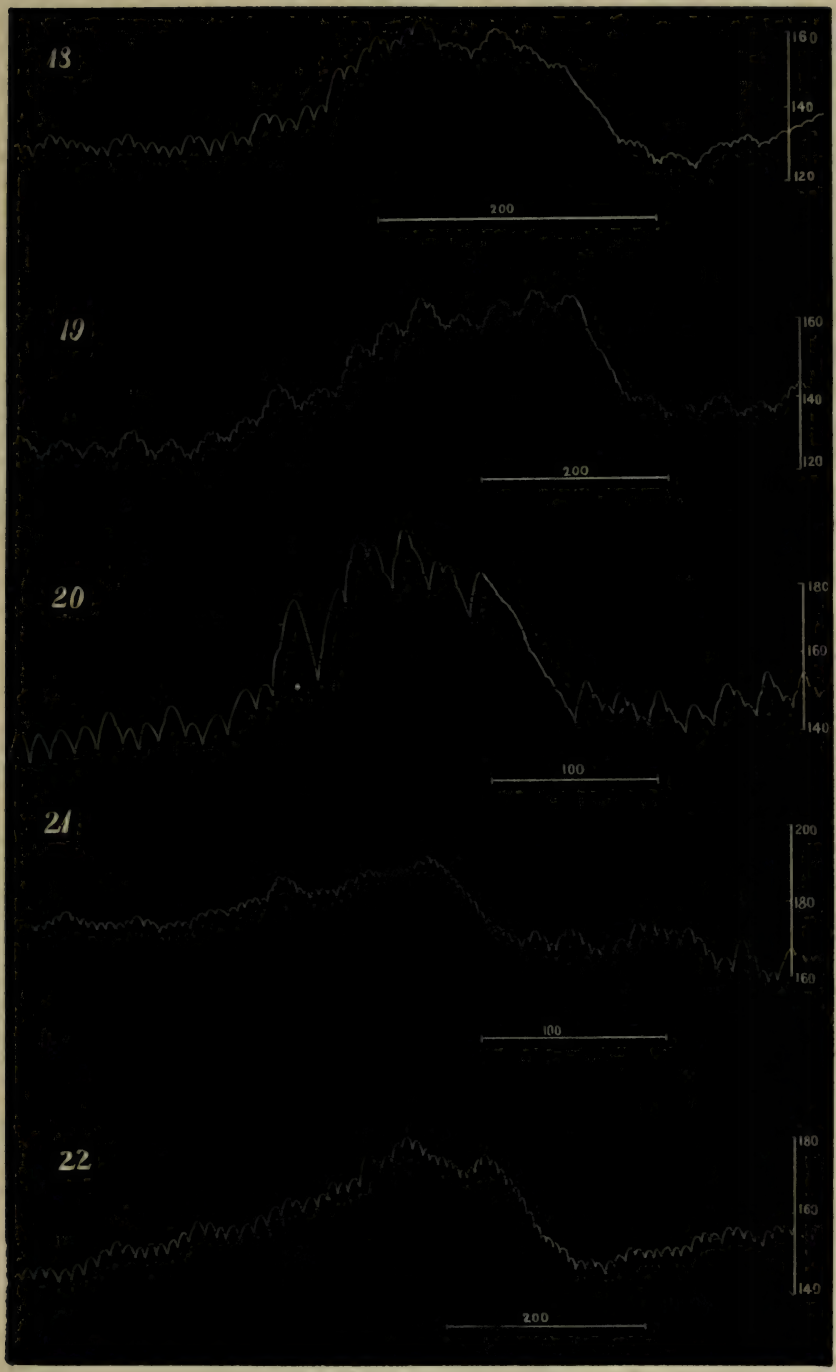
Fig. 21, during ether inhalation.

Fig. 22, after ether inhalation.


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Progress in Medicine.

REPORT ON DISEASES OF THE CHEST.

By F. I. Knight, M.D.

Angina Pectoris.

This affection has recently excited unusual interest in the profession, on account of the sudden death of a great statesman, who was known to have been a sufferer from it for a long time. It was, perhaps, rather unfortunate that the diagnosis of ossification of the coronary arteries, which the newspapers informed us so positively had been made, should have been confirmed, inasmuch as that is only one of many organic changes which have been found associated with angina pectoris. Every variety of organic disease of the heart and aorta has been found in different cases, and some cases have seemed to be purely functional. For the details of quite a large number of cases, with autopsies, the reader is referred to an exceedingly interesting paper, by Dr. J. W. Ogle, in the *British and Foreign Medico-Chirurgical Review*, Oct. 1870. Heberden, who first accurately described this affection, brought out its nervous character, calling it a cramp of the heart. Romberg calls it hyperæsthesia of the cardiac plexus; Bouillaud, neuralgia of the phrenic nerve; and Bamberger, a hypercinesis with hyperæsthesia.

Laennec thought that the primary affection is seated sometimes in the pneumogastric nerves, and sometimes in the cardiac portion of the sympathetic, and that the brachial plexus becomes implicated.

J. Lockhart Clarke (St. George's Hospital Reports, vol. iv.) says that this view of Laennec, in regard to the proximate cause of angina pectoris, has been materially supported by recent inquiries. He refers to the cases of M. Lancereaux, to the researches of Bezold, and to the article of Eulenburg and Guttmann* on the pathology of the sympathetic. In one case of Lancereaux, there was, among other lesions, disease of the cardiac plexus of nerves. The heart itself was healthy; but in the aorta, between the orifices of the coronary arteries, which were so much narrowed as scarcely to admit the introduction of a stilette, there was a prominent plate, of several centimetres in extent, festooned along its borders, and composed chiefly of a new formation of connective tissue, having a finely arborescent structure, and situated between the internal and middle coats. The external coat was extremely vascular, and the cardiac plexus, which lies on this part of the vessel, participated in the vascularity, while some of its filaments were included in a kind of plasma on the surface of the thickened, external coat. On microscopic examination of the nervous filaments and ganglia, numerous round nuclei were found interposed in masses between the tubular elements, compressing them more or less. The medullary sheaths or white portions of the tubules were grayish and granular. A calcareous mass was found close to the point of recurrence of the left inferior recurrent laryngeal nerve, where it was adherent to the neurilemma. The aortic valves were somewhat thickened near their attached border. All the abdominal organs were healthy,

* See this Journal, October 13, 1870.

except the liver, which was rather fatty. In two other cases of sudden death, M. Lancereaux found a similar lesion of the aorta, having the same position and characters, and giving rise to a decided narrowing of the coronary arteries. The cardiac plexus, although not examined, was probably involved in the disease. According to Bezold, the sympathetic nerve-fibres of the heart are partly contained in the cervical cord of the sympathetic, proceeding from the ganglia as cardiac nerves, and are partly derived from the brain, running through the cervical portion of the spinal cord to the inferior cervical ganglion, whence they proceed to the cardiac plexus. Eulenburg and Guttmann conclude, from an analysis of cases, and from the experiments of Bezold, that the abnormal action of the heart in angina pectoris is due to the influence of the sympathetic on the ganglion of the heart; and as all the sympathetic fibres of the heart meet in the cardiac plexus, that this plexus is the medium through which the abnormal action is produced.

It is not difficult to imagine how organic disease of the heart may produce irritation of the cardiac plexus, or of ganglia situated in the substance of the heart; but in some cases no organic disease is found, and in some the affection seems to be a reflex one, from disease of other organs. Oppolzer had several cases of such from gastric catarrh. The attacks of angina began with heartburn and nausea, and treatment of the gastric affection cured the angina. In most organic affections of the heart, the substance of the heart itself is affected; and those who fully accept the theory that contraction of the heart is not dependent upon the pneumogastric or sympathetic, but is brought about by the cardiac ganglia, thus account for the symptoms in angina pectoris.

Moinet, especially, insists upon the separation of cases of angina pectoris into two grand classes, organic and functional.

Dr. Blatin thinks it is most probably in many cases due to the use of tobacco, and recalls, in this connection, the fact of its much more frequent occurrence in men than in women.

Dr. Stevens recorded a case in this JOURNAL, of May 30, 1872, where an attack of angina pectoris came on in consequence of disappointment in love.

In the treatment of this most distressing affection, all kinds of stimulants, sedatives, narcotics and anæsthetics have been tried. Among many remedies employed in a case of Lockhart Clarke, one of those which afforded the most relief, and which the patient desired to have repeated, was a small dose of calomel, combined with colocynth and assafœtida.

Faradization has been employed with great success in cases of Duchenne, Aran, and Beard and Rockwell. Galvanization of the sympathetic produced immediate relief in a case of Hübner's. In Dr. Stevens's case, before alluded to, relief was attributed to six leeches applied over the cardiac region.

Hydrate of chloral has been used with benefit in some cases, a notable instance of relief being reported by Dr. Strange, in the *Medical Times and Gazette* of Sept. 24, 1870. An old gentleman, very gouty, had been subject to attacks of angina pectoris every night for four months. Twenty-five or thirty grains, at first taken alone, and afterwards combined with a little sulphuric ether and aromatic spirit of ammonia, served to ward off the attack every night, when taken, for

the next four months, at the end of which time the report was made. Sometimes an extra half dose was given.

Anstie *(British Medical Journal*, Nov. 11, 1871), who advanced the theory that angina pectoris, asthma and gastralgia are all of them essentially dependent on neurosis of the vagus, recommends arsenic in their treatment. He reports two cases in which Fowler's solution, five minims three times a day, relieved the attacks of angina very rapidly, and completely removed them in the course of about a fortnight. As regards gastralgia, the efficacy of arsenic was pointed out some years ago by Dr. Learned. Dr. Anstie has, for many years, used arsenic with benefit in asthma. For those patients who cannot bear the arsenic in the doses and for the prolonged period which are necessary to make any permanent impression upon either of the three neuroses, Dr. Anstie recommends the subcutaneous injection of strychnia $\frac{1}{120}$–$\frac{1}{60}$ of a grain. He thinks there is little doubt that strychnia has a physiological affinity for the tract of the vagus and trigeminal nerves; also that this is much feebler than that of arsenic, hence he recommends the latter to be tried first.

The remedy, however, which has attracted the most attention, recently, is the nitrite of amyl. We would refer those of our readers who wish to obtain valuable information as to the physiological action of this drug to the memoir of H. C. Wood, Jr., M.D., to which was awarded the Warren prize for 1871, of the Massachusetts General Hospital, which is published in the *American Journal of the Medical Sciences* for July, 1871.

Many cases of relief from the paroxysms of angina pectoris by its use have been already reported by Brunton, Anstie, Leishman, Madden, Haddon and others. We must, however, bear in mind the fact that men habitually report their cases where favorable results of treatment are strikingly manifest, and let failures in treatment pass unrecorded. Haddon and Hilton Fagge, however, report cases where the nitrite of amyl not only did not relieve, but produced alarming symptoms.

We will first allude to some of the cases where it has given marked relief. Dr. Brunton *(Lancet*, July 27, 1867) divides cases of angina into two classes. 1. Where the pain is very severe, and comes quickly and goes quickly; 2. more common; attack sometimes gradual, and departure generally so; lasts from a few minutes to an hour and a half, or more; sense of impending dissolution less marked, or altogether absent. Dr. B.'s cases, in which relief was obtained by inhalation of nitrite of amyl, belong rather to the second class. In cases of aneurism where pain was constant, the inhalation gave no relief; but when it was spasmodic, or subject to occasional exacerbations, it either completely removed or greatly relieved it. Leishman *(Glasgow Medical Journal*, Aug., and *Practitioner*, Sept., 1869) reports instant relief from the inhalation of nitrite of amyl in a case of angina in a patient who had a dilated and atheromatous aorta (as found on autopsy). Dr. Wilks reports (*Lancet*, Jan. 16th, 1869) the case of a patient with aortic disease, in whom paroxysms of angina could be relieved, either by subcutaneous injection of morphia, inhalation of chloroform, or of nitrite of amyl, the patient himself preferring the subcutaneous injection.

Dr. H. C. Wood, Jr. *(American Journal of the Medical Sciences*,

Oct., 1871) reports a case of angina pectoris occurring in a negro woman, 21 years old, with mitral disease. The attacks were stopped almost immediately by the inhalation of nitrite of amyl. Dr. Wood says, in regard to the administration of this remedy, that five drops should be put upon a handkerchief, and held close to the nostrils, the pulse being closely watched. If necessary, the dose should be repeated. When given by the stomach (as suggested in case of tetanus), he thinks it would not be safe to start with more than two drops, until the effects of the medicine so administered have been more studied. He thinks that, with proper care, it is a safe remedy. He has never, in his experiments, seen indications of anything such as constantly happens in the use of chloroform upon dogs, sudden arrest of the heart's action, unexpected death, the mysterious production of symptoms out of proportion to the amount given.

Haddon *(Edinburgh Medical Journal,* July, 1870) reports a case where the inhalation of the nitrite of amyl gave such immediate relief to attacks of angina pectoris, that the patient, for two years, was in the habit of carrying it always with him. During life, he presented signs of aortic disease, and, on autopsy, this was found, with enlargement of the heart. The coronary vessels were natural.

Several cases are recorded in which the nitrite of amyl was administered without relief. Dr. Haddon, in connection with the case just quoted, where such striking relief was obtained, reports two other cases, where not only no relief was obtained, but what he considered alarming symptoms were produced.

One patient was 43 years of age ; he had almost constant pain over the cardiac region, occasionally becoming very severe, and extending down the left arm. He presented the signs of aortic disease, with enlargement of the heart. During a severe attack of angina pectoris, in which the pulse was 80, jerking, Dr. Haddon tried the inhalation of nitrite of amyl. Three drops were put on a towel and the patient allowed to inhale, the cloth being held about two inches from his face, and occasionally removed. As he began the inhalation, the pulse lost its jerking character and became slower, in a minute so slow that Dr. Haddon thought it would stop altogther. The patient raised himself on his elbow, and, with pale face, moved himself about as if for breath. He seemed confused, and did not answer questions. Brandy was given, and a current of fresh air was made to pass over his bed. Gradually, the fulness and strength of the pulse returned, and it finally became jerking again. He had severe headache, was drowsy for an hour, then fell asleep, and, when he awakened, was the same as usual. The pain was not relieved.

The other was 33 years of age, and was subject to pain in the cardiac region, extending through to the back and down the left arm as far as the elbow. Pulse was 92, small and weak. There was visible pulsation in the arteries of the neck, and increased impulse was felt on pulsation. But the apex of the heart was normal in position, and the cardiac dulness was found to be only two inches and a half transversely. On auscultation, a loud, blowing, musical murmur (the *time* of its occurrence is not stated) was heard all over the cardiac region, loudest over the third rib, about an inch to the inside of the left nipple.

The pain, one day, being severe, it was thought that the nitrite of

amyl might relieve him. Five drops were put on a towel, and were given by inhalation. One minute after, his face became flushed, he stared, and, with open mouth, he turned his head from side to side in an anxious manner. Then a paroxysm of cough, to which he was subject, supervened, which was more than usually severe. The expirations of which the cough consisted became gradually shorter, until he was left motionless, his mouth open, his face and neck greatly congested, and his jugular vein standing out as thick as one's little finger. He recovered after a few seconds, cold water having been dashed upon his face and neck, and fell back upon his pillow exhausted. The angina was relieved, the paroxysms of cough returned at intervals of several hours, when the patient fell asleep. He woke in six hours, and found the angina pain just as it was before the inhalation. This patient died a month or two afterwards, never rallying after a paroxysm of coughing. On autopsy, the left phrenic nerve was found to be implicated in a small tumor, the size of a filbert, situated in part of the root of the left lung, and composed of a bronchial gland enlarged and infiltrated with carbonaceous matter. On microscopic examination, the nerve tubes were found continuous at the affected part of the nerve; the substance was slightly granular; the right phrenic was natural. The vagi and recurrent nerves, on both sides, were natural; pericardium was adherent throughout. There was an aneurism of the aorta, opening half an inch above the aortic valve, which obstructed the pulmonary artery. The aorta was atheromatous throughout the arch, and for some distance down.

[To be concluded.]

Severe Injury to the Throat; Recovery.—A married woman, aged 24 years, attempted to commit suicide by cutting her throat with a razor, and, with a determined, sweeping stroke of the instrument, severed completely the tissues of the neck in front of the cervical vertebra. The wound extended from the sterno-cleido-mastoideus muscle of the right to the corresponding muscle of the left side, the external jugular veins on both sides being divided, and the carotid arteries laid bare. The trachea and œsophagus were both cut across above the *pomum Adami*. The razor, having been directed upwards, severed completely the integument above the glottis and epiglottis, and passing over the *os hyoides*, just beneath the base of the tongue, detached these important organs from the larynx and pharynx. The woman remained in a very critical condition for twenty-four hours, at the expiration of which time she began to rally. The power of speech was lost, nor was she able to take any nourishment by the mouth, all fluids taken passing out of the wound in the throat. From some cause, not explained in the report of the case, all efforts to introduce a stomach tube were unsuccessful, and nutrient enemata were, therefore, resorted to, by means of which life was sustained for eighteen days. It was now found that a portion of the fluids taken into the mouth did pass into the stomach, and, in the course of eight or ten days, deglutition had so much improved as to permit solids to enter the œsophagus. This process was successfully performed, however, only when she assumed the recumbent posture. At this stage, the enemata were dispensed with. Health and strength gradually improved, until the ingesta found their way readily into the stomach even when the woman was in the erect posture. The injury to the vocal apparatus was also sufficiently repaired to allow her to employ again her voice, though her articulation and enunciation were, at last accounts, very imperfect.—D. W. Hammond., in *Transactions of the Medical Association of Georgia for* 1873.

Reports of Medical Societies.

ESSEX NORTH DISTRICT MEDICAL SOCIETY. JOHN CROWELL, M.D., SEC'Y.

ANNUAL meeting, May 6th. The first business in order was the election of officers. (The list of those elected was published in the last number of the JOURNAL.)

Dr. Martin Root, of Byfield, declined further service as Secretary and Treasurer, having served in that capacity thirty-one years, during which long period of faithful service he had only *twice* failed to be present at the meetings of the Society.

The following resolution was unanimously adopted:—

"*Resolved*, That Dr. Martin Root, by his untiring industry, fidelity and faithfulness as Secretary and Treasurer of this Society for the term of thirty-one years, has received our entire confidence and esteem; and, as a slight testimonial of this feeling, we authorize the treasurer to pay over to him the sum of fifty dollars, from the funds of the Society, for his own use."

Dr. Jeremiah Spofford resigned his position as Commissioner on Trials, and the following resolution was unanimously adopted:—

"*Resolved*, That the thanks of this Society be tendered to Dr. Jeremiah Spofford for the faithful discharge of his laborious duties as Commissioner on Trials during the existence of that Board.

An interesting and exhaustive discussion ensued, on the *Treatment of Scarlatina*, after which Dr. Garland, of Lawrence, reported the following case of *Fracture and Dislocation of the Neck*:—

March 12, 1874, Mrs. N., aged 45, a large, muscular lady, residing in Lynn, Mass., fell down stairs (eleven eight inch steps), striking upon the top of her head. Those who came to her assistance exclaimed, "she has fainted." Mrs. N. replied, "I am not faint, but I cannot move"; she told them that when she struck the floor she saw a vivid flash of light, and then for a few seconds was left in utter darkness, but did not lose her consciousness. Any attempt to move her gave great pain in her neck, and she gave directions how to hold her head, as several men were taking her up stairs to her bed. A *homœopathic surgeon (?)* was called, who, after an examination, declared there was "no injury of the spine, as the bones were all intact." On the 14th, she was removed from Lynn to Lawrence, on a stretcher procured at the Massachusetts General Hospital. On reaching Lawrence, she was carefully placed in bed, and so adjusted as to relieve pain of neck as much as possible. An opiate was given, and no examination made at that time, except to ascertain that there was complete paralysis of the body and limbs. There seemed to be a slight reflex action on pinching the arms near the shoulder, but this was doubtful, and there was no positive sensation below the fourth rib, and no natural feeling below the neck. The catheter was passed, and she was left for the night.

On the 15th, a careful examination was made by Dr. Chamberlain and myself, when crepitation was felt at a point below the middle of the neck, with slight depression, together with unusual mobility of the head in all directions. Extension from the head was then made, when a snap was heard and felt by those assisting, followed with relief

of pain, particularly at the upper part of the neck. She was placed in a horizontal position, and just enough extension made from the head to keep it in place and to relieve suffering. The respiration was almost all diaphragmatic. Pulse 80, and quite full. Took nourishment, milk, &c. Intellect perfect. No dejection since injury.

On the 16th and 17th, much the same, except the respiration, which, on the 17th, became less frequent and wholly diaphragmatic and labored. Mind clear as a bell. Articulation and deglutition good. Had an almost sleepless night, and, in the morning of the 18th, her neck was more swollen, and she complained of great pain, extending up into her head. Breathing much labored and gasping. Mind perfect. Pulse 84, and good. She continued to fail till 5, P.M., when she died. She conversed with friends a few moments before breathing her last.

The autopsy was not made until Saturday, the 21st, and was necessarily very brief, as the body was kept on ice up to a short time before the funeral service. The integuments were divided, and the cervical vertebræ exposed. A comminuted fracture of the fifth vertebra was found, together with a complete separation of the atlo-axoid ligament from the arch of the atlas. Notwithstanding this, the patient lived six days, retaining her intellect perfectly, and adding one more to the limited number of persons who have survived for a number of days after fractures and dislocations of the neck.

Dr. E. P. Hurd, of Newburyport, read a learned and concise paper on the "*Germ Theory of Disease,*" which was listened to with marked interest. The writer reviewed the various theories presented by scientists, and gave an accurate analysis of each, with the more advanced ideas in regard to the ultimate course of disease.

Consistency a Rare Jewel.—In the last number of the *Archives of American Medicine and Surgery* (an Eclectic periodical), the editor takes occasion to animadvert upon the employment of *buncombe* in medical meetings, but in the very same number is printed a report of the progress of what is termed "sanative medication," in which the writer, sublimely indifferent throughout to the ordinary rules of grammar, closes a spread-eagle harangue in the following strain:—

"Allopathy hears the muttering sound, the deafening peals approach nearer and still nearer, and soon the lightening *(sic)* shafts of the people's wrath, indeed they are now rending asunder their antiquated dogmas. Already they tremble and hasten to throw up bulwarks, but Science, in her onward march, heeds them not. Co-workers in this glorious cause, let not their preparations for defeat induce you to slacken your energies—press forward and victory is ours."

The Winter in Europe.—European journals and correspondents agree in representing the past winter as unusually severe, and invalids who have thought to find a warm, genial climate in Southern France and Italy have been grievously disappointed. We are informed by private letter from Rome, that the surface of the ground in that city has been whitened by snow as late as the eleventh of March, a phenomenon that has not been observed for thirty years previous. From along the entire coast of the Mediterranean, according to the *British Medical Journal*, complaints are heard of inclement weather, while in Cairo, the piercing winds and the clouds of dust and sand, combined with the comfortless hotel existence, have made the winter particularly distressing to those suffering from chest diseases.

Bibliographical Notices.

Sixtieth Annual Report of the Trustees of the Massachusetts General Hospital. 1873.

THERE are few charitable institutions in this country whose record of good work extends over so long a term of years as that of the one whose annual report now lies before us. The charities of Boston have increased one hundred fold during the half century which has elapsed since this Hospital first opened its doors to the sick. Notwithstanding that the claims of so many are constantly and conspicuously displayed before the public eye, its reputation has ever been that of one of our leading charitable institutions, if not *the* leading one of Boston. It is not among Bostonians alone, however, that this reputation maintains, but there is scarcely a town or village in all New England where its name is not well known and remembered with gratitude and respect. The consequence of this has been that the institution has grown to such dimensions that the annual expenses of the Hospital and Asylum now exceed the sum of two hundred and fifty thousand dollars; and, although of late years legacies and donations have been numerous and of generous dimensions, the income has usually been insufficient to meet the large expenses, and this year the deficit amounts to nearly twenty thousand dollars. In this connection, the remarks of Mr. Stevenson, the Treasurer, delivered last February, at the State House, before the committee on just and equal taxation, are of interest. It having been proposed to levy a tax upon this institution, Mr. Stevenson appeared before the committee to remonstrate, and there forcibly pointed out "that the institution needs a million of dollars more of income-producing property than it now holds, in order to continue its present work of beneficence without enlarging its sphere." It is pleasant to learn that, in the few months that have elapsed since this appeal was made, the Hospital has been the recipient of a most munificent bequest of two hundred thousand dollars from the widow of the late Frederick W. Lincoln. It should not be forgotten that a large sum is still needed to furnish an income sufficient to meet the annual expenses; and although a Hospital Sunday may call forth a generous response from the public, the contribution from this source will prove little more than a drop in the bucket.

During the summer, two new buildings of iron and wood, connected by covered corridors with the main buildings, were begun and are now completed. These buildings are to be called the Jackson and the Warren, in memory of the valuable services of the late Drs. James Jackson and J. Mason Warren. They are built on a different plan from any hospital buildings in this part of the world, and a wood-cut is given in the report showing their form and appearance. We are glad to notice the adoption of the one-story plan of building, and hope to learn that the good result of a more perfect system of ventilation will have a practical demonstration.

Those who remember the graceful old elms which adorn the hospital garden, will be glad to learn that this part of the grounds is about to be rescued from the neglected state in which it has been allowed to remain, and the dreary waste in the western portion is to be "reclaimed," and made not only available to convalescent patients, but also to serve an ornamental purpose, an element which hitherto it has apparently not been deemed necessary to introduce.

The one-horse ambulance in use since the middle of July last, has proved to be far from a "one-horse affair." "Its great usefulness is beyond question; it is not called for in cases of accident, but is in frequent use to transport cases of sickness unsuitable for conveyance in other vehicles."

The report of the McLean Asylum we commend to the perusal of those who lend a willing ear to frequently repeated slanders on institutions of this class. The good work accomplished, unfortunately perhaps, does not partake of the same sensational character.

We append a list of the present officers of the institution:—

President.—Edward Wigglesworth.

Vice President.—Nathaniel Thayer.

Treasurer.—J. Thomas Stevenson.

Secretary.—Thomas B. Hall.

Trustees.—Samuel Eliot, James M. Beebe, E. Francis Bowditch, Charles R. Codman, Charles H. Dalton, Edmund Dwight, George E. Ellis, George S. Hale, Samuel G. Howe, Henry P. Kidder, Robert H. Stevenson, Samuel D. Warren.

Resident Physician.—Norton Folsom, M.D.

Visiting Physicians.—George C. Shattuck, M.D., Francis Minot, M.D., Calvin Ellis, M.D., Samuel L. Abbot, M.D., Benjamin S. Shaw, M.D., Geo. G. Tarbell, M.D.

Visiting Surgeons.—Henry J. Bigelow, M.D., Henry G. Clark, M.D., Samuel Cabot, M.D., George H. Gay, M.D., Richard M. Hodges, M.D., Algernon Coolidge, M.D.

Physicians to Out-patients.—David H. Hayden, M.D., William L. Richardson, M.D., Edward N. Whittier, M.D., Henry Tuck, M.D.

Surgeons to Out-Patients.—Charles B. Porter, M.D., John Collins Warren, M.D., Henry H. A. Beach, M.D.

Physician to Out-patients with Diseases of the Skin.—James C. White, M.D.

Physician to Out-patients with Diseases of the Nervous System.—James J. Putnam, M.D.

Physician to Out-patients with Diseases of the Throat.—Frederick I. Knight, M.D.

Ophthalmic Surgeon to Out-patients.—Oliver F. Wadsworth, M.D.

Dentist.—Charles Wilson, M.D.

Microscopist and Curator of the Pathological Cabinet.—Reginald H. Fitz, M.D.

Chemist.—Edward S. Wood, M.D.

Artist.—Henry P. Quincy, M.D.

The officers of the McLean Asylum for the insane, located at Somerville, are as follows:—

Superintendent.—George F. Jelly, M.D.

1*st Assistant Physician.*—James H. Whittemore, M.D.

2*d Assistant Physician.*—Charles E. Woodbury, M.D.

A Treatise on Pharmacy, designed as a Text-book for the Student and as a Guide for the Physician and Pharmacist; containing the Officinal and many Unofficinal Formulas and numerous Examples of Extemporaneous Prescriptions. By EDWARD PARRISH, late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, &c. &c. Fourth Edition. Enlarged and thoroughly revised, by THOMAS S. WIEGAUD. Philadelphia: Henry C. Lea. 1874.

THIS new edition of a well-known work, addressed both to the physician and pharmacist, presents a vast amount of information useful to each profession.

Of its accuracy in a strictly pharmaceutical point of view, we do not take it upon us to speak, but we understand that, in the hands of the present editor, many mistakes have been corrected and the work brought up to the present status of the art. Some parts have been almost entirely re-written.

There is hardly any information needed by the pharmacist in the practice of his art, or by the country practitioner who may be compelled to compound his own prescriptions, and who wishes to do so elegantly as well as rapidly, which will be sought here in vain, while much of it might profitably be studied, even by the physician who has a well-appointed pharmacy at the nearest corner.

We find lists of an outfit of drugs for a physician's dispensary, which have apparently not undergone the same revision with the rest of the book, since

we notice half a pint of ether, with "letheon" in parentheses, to go with four ounces of calomel, one of tartar emetic, and one of gamboge.

"Only one pennyworth of bread to such an intolerable deal of sack!"

These belong to a "list which may be regarded as the least on which a physician who is obliged to dispense his own prescriptions can commence practice."

The chapter on the writing of prescriptions is somewhat amusing, and contains full directions, vocabulary, grammar and all, for the construction of a fine old full-blooded Latin prescription, a piece of ancient literature which, we take it, few apothecaries set their eyes upon from one year's end to the other. The author wisely remarks, and we think Professor Lane would agree with him, that the "language used in prescriptions must be regarded as distinct from the Latin taught in schools."

These, however, are not the only points which the physician would do well to heed. Ambiguous abbreviations, flourishing chirography and deficient or indistinct directions are properly deprecated. "The first process, on receiving a prescription to be compounded, is to read and thoroughly to understand it."

To the physician, this book is instructive and full of suggestions; to the pharmacist, a mine of information. We are happy to say it does *not* contain a "list of diseases, with their remedies."

The New Chemistry. By JOSIAH P. COOKE, JR., Erving Professor of Chemistry and Mineralogy in Harvard University. New York: D. Appleton & Co. 1874. Pp. 326. International Scientific Series.

THIS work consists of the printed notes of a course of lectures delivered by the author before the Lowell Institute, in Boston, in the Fall of 1872, at which time many of the readers of the JOURNAL had the pleasure of hearing them, and at the same time of witnessing the experimental illustrations, without which the mere rehearsal of the facts is comparatively dry and uninteresting. In these thirteen lectures, the distinction between the old and new chemistry is explained in so clear a manner, that it can easily be understood by a non-professional person. In a course of popular lectures we do not expect to find discussions of all of the technical features of the new system, nor do we find them in Prof. Cooke's work, but the more important points, all which are necessary to explain the development of the new chemistry, are considered and fully illustrated.

The first three lectures are devoted to an explanation of the exact meaning of the word "molecule," and the enunciation of the law of Avogadro, which is that "equal volumes of all substances, when in the state of gas, and under like conditions, contain the same number of molecules." The development of the new chemistry from the above law is logically traced, and clothed in such plain language that the careful reader cannot fail to understand clearly the new nomenclature and the new formulæ. These three lectures are chiefly physical, the molecule being the smallest amount of matter with which the physicist has to deal.

In the next three lectures, we find the atomic theory fully developed, the difference between the molecule, the physicist's unit, and the atom, the chemist's unit, being explained. The experiment showing the analysis and synthesis of water, is described to illustrate this theory. The explanation of chemical changes, and the method of expressing these changes by symbols and chemical notation, is made very clear and simple. In the seventh and eighth lectures, this subject is continued, the writing of reactions is described, and the different kinds of reactions are classified into the analytical, synthetical and metathetical.

The ninth and tenth lectures are devoted to the study of combustion, the latter containing an explanation of the difference in the burning of gunpowder and nitro-glycerine, the different results obtained by the explosion of these two substances depending upon the difference in their molecular structure.

The last three lectures explain what is meant by "quantivalence," and the structure of compound molecules. In the twelfth lecture, the electro-chemical theory is discussed. This includes an explanation of the difference between those substances which are termed acids, bases and salts, which the beginner in chemistry, especially if he has been taught the old nomenclature, finds it so difficult to understand; and those of our busy practitioners who learned to express their chemical compounds and changes according to the terms of the old chemistry, and find it hard to recognize familiar substances in their new dress, will find in this work of Prof. Cooke all the information necessary to enable them to change their formulæ from the old to the new.

W.

The Student's Guide to Surgical Anatomy. By EDWARD BELLAMY, F.R.C.S. Philadelphia: Henry C. Lea. 1874. Pp. 300.

WE fully agree with the author in his opinion that there is room for a book of this nature. It is not a dissector, strictly speaking, nor is it a surgical anatomy, but a work on what, as the author says, might be termed applied anatomy—a branch of which American students, and we suspect English ones too, are very ignorant. Important as descriptive anatomy is, we think it much to be regretted that more time cannot be given to the study of the body as a whole. It is of little real advantage to the student to be able to give the origin and insertion of muscles if he is ignorant of their relations to bones, vessels and nerves, and to one another. It has been too much overlooked that a beautifully dissected subject for class demonstration is in about as unnatural a condition as it can well be, and gives not only an imperfect but often a false idea of the structure of a man when he is walking the street. The book before us is just what is wanted under these circumstances; by which we do not mean that it is a perfect or an elaborate treatise on topographical anatomy, but that it is well written, suggestive, and likely to turn the thoughts of the student in the direction of his deficiencies. The text is clear and the figures mostly good. Though we somewhat regret that the author does not go more into details, on the other hand we recognize the advantage of a small book. By way of criticism, we may observe that the sesamoid bones of the metacarpo-phalangeal joint of the thumb should at least have been mentioned, for they constitute the real difficulty in reducing a dislocation. The author speaks of the difficulty, but not of its true cause. There is a serious blunder, doubtless owing to careless proof-reading, in the account of the anatomy of the parts concerned in Lisfranc's amputation. "The joint of the third with the scaphoid is almost transverse; that of the fourth is curved, and that of the fifth with the cuboid is doubly oblique." We have no means of knowing whether the word "third" refers to a metatarsal or to a cuneiform bone, but in either case the passage is absurd. We regret that it should be necessary to remark that there is no verb "to tense." These and some other errors will doubtless disappear in a second edition, which we hope will appear shortly, for the book is a good one and deserves success.

T. D. JR.

BOOKS AND PAMPHLETS RECEIVED.

Seventh Report of the Medical Staff of St. John's Hospital. Lowell. 1874. Pp. 7.

Boylston Medical Society of Harvard University. Catalogue. March, 1874. Pp. 36.

The Conditions of the Conflict. Oration before the Medical Society of the County of Kings, Brooklyn, N. Y. By Alexander Hutchins, M.D. 1874. Pp. 32.

The Channing Home. Report No. 6, for the year ending April 1st, 1874. Boston. Pp. 11.

On the connection of the Throat and other Diseases. By S. Elsberg, M.D. (From the Medical Gazette, 1870.) Pp. 24.

Boston Medical and Surgical Journal.

Boston: Thursday, May 21, 1874.

By the invitation of the Boston Society for Medical Observation, Dr. Brown-Séquard delivered a lecture on the case of the late Hon. Charles Sumner before that Society, and many invited guests, on the evening of May 14th. Dr. H. I. Bowditch presided. The lecturer said that he had watched the case closely since the summer of 1858, and had a large number of letters concerning it. Apart from personal and political considerations, he thought the case one of great medical interest. We shall endeavor to give, first, a condensed account of the case, as related by Dr. Brown-Séquard, and then his views and treatment of certain special points.

On the 22d of May, 1856, Mr. Sumner, while sitting at his desk in the Senate chamber, was struck several severe blows on the head with a cane. He became insensible and lost much blood. He slowly rallied, and when, ten or twelve days after the occurrence, he was seen by Dr. Perry, of Boston, who happened to be in Washington, he was suffering from great weakness, pain in the lumbar region, and apparent loss of control over the legs, together with a sense of fulness in the head. He spent the summer in the Alleghany Mountains with some improvement, though walking was very difficult. The next winter he resumed his seat in the Senate, but, finding it impossible to attend to his duties, he, after a few days, went to Europe, returning in December, 1857. He experienced several relapses, and again sailed for Europe in May, 1858. He went at once to Paris to consult Dr. Brown-Séquard. He apparently was worse than at any time since the accident. Intense pain in the head followed the slightest mental exertion. Walking consisted of pushing the legs alternately along the ground without raising them, but it was discovered that this was due solely to the pain which raising them would cause, and not to any paralysis. There were two points on the spine which were exquisitely tender, and more so then than ever before. One was situated at the junction of cervical and dorsal regions, the other at that of the dorsal and lumbar. The lecturer stated that in these places the two points of the æsthesiometer can rarely be recognized when less than two inches apart, but that in this case they were distinguished when only one line distant from each other.

The sensation of heat and cold and of pain were also increased at these points. There were no cerebral symptoms that could not be referred to the influence of the vaso-motor nerves. Six moxæ were applied to the spine in the course of six weeks, three to each tender

spot. The patient refused chloroform, understanding that the counter-irritation would be more effectual without it. The result was very satisfactory, even the first application being followed by a marked diminution of the hyperæsthesia. He passed the summer in Savoy, with great relief of the head symptoms, and was able to walk very fairly. In November, Dr. Brown-Séquard again saw Mr. Sumner; this time together with Prof. Trousseau and Dr. George Hayward. There was manifestly congestion of the membranes of the cord, and, perhaps, of the lower part of the cord itself. The most distressing symptom was one which had shown itself some time previously, but was now much increased, namely, the necessity of rising frequently during the night to empty the bladder. Dry cupping was of some service, and in the following spring and summer he derived additional benefit from sea-bathing. Mr. Sumner then returned to America. He was weak, with a feeble pulse, suffering more or less from the last-mentioned trouble, and had experienced one or two attacks of angina pectoris; otherwise, he was well. Dr. Brown-Séquard saw him several times between 1859 and 1872, during which period he enjoyed tolerable health, though not free from these symptoms. He suffered relapses due to mental disturbance from political causes, the chief of which were Mr. Motley's recall from Vienna, the San Domingo affair, the removal of his brother-in-law from a government office in California, and the events attending the nomination of Mr. Greely for the presidency. The trouble with the urine was especially marked, it being sometimes necessary for him to rise from twenty to thirty times during the night. Since last summer, Mr. Sumner had been pretty well, and he went to Washington for the last time in good condition.

The particulars of the Senator's last hours are pretty generally known, so that they need not be given here in detail. The lecturer read part of a letter from Dr. Johnson, of Washington, giving some account of them. The day before death, there was a severe attack of angina, which morphia failed to relieve. Collapse soon supervened, which was ineffectually combatted by stimulants internally, and by sinapisms. The lungs were congested, and there was some expectoration of bloody mucus. For six hours before death, no pulse could be felt at the wrist. Only twenty minutes before breathing his last, the patient asked for morphia to soothe the feeling of intense weariness which oppressed him, but yielded calmly to the reasons which were given for refusing it. Just before the end, there was an attack of vomiting, followed by a general spasm of rigidity, which closed the scene.

Two days after death, the face, neck, shoulders and arms were greatly swollen, and putrefaction was very rapid. The friends of the dead Senator appear to have behaved very absurdly concerning an

autopsy, which was not made till the body had reached Boston, when it was too late to examine the cord. There was no disease of the brain. The walls of the left ventricle of the heart were thin, and the coronary artery supplying them much diminished in size, and considerably ossified. The bladder was healthy.

As to the general purport of the case, Dr. Brown-Séquard thought that there were two sprains of the spine. He held that the upper one was caused by the blows on the head, and the lower by the violent effort which Mr. Sumner made to rise during the assault. He thought that the angina was probably an indirect result of the injury, though this theory did not admit of demonstration.

The lecturer discussed, at length, two of the most prominent symptoms, viz., the bladder trouble and the angina pectoris. The former occurred during sleep, whether by night or by day; it was accompanied by a spasm of the sphincter of the bladder, and he thought was due to congestion of the cord. Many remedies were tried. Atropine, injected subcutaneously, in doses of, at first, $\frac{1}{3\,0}$ gr. and later $\frac{1}{2\,0}$ gr., had a good effect, but produced strangury, which was relieved by adding morphia. The bromides were of little service. Hyoscyamine associated with canabis indica, of which very large doses were finally given, was best of all.

Dr. Brown-Séquard remarked that angina was by no means necessarily a symptom of disease of the heart, but that it might depend on many disturbances of the system. The treatment had generally aimed at increasing the general strength, but local counter-irritation and many drugs had been employed. At times, narcotic injections had been given daily.

The lecture was listened to with the greatest attention, and at the close Dr. Bowditch thanked Dr. Brown-Séquard in the name of the audience.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, May 6 and 9, 1874.)

OPERATIONS were performed in the following cases :—Deformed Knee, Tumor of Nose, Deformity of Mouth, Tumor of Neck. During the week, Stricture of Urethra with Retention of Urine, Railroad Injury of Hand and Wrist, Hæmorrhoids, Injury of Foot.

Deformed Knee—in a boy twelve years old, due to contracted ham-strings; the tendons of the latter were divided, and, after two months of treatment with orthopædic apparatus in the hospital, he was allowed to go home, two weeks ago, partially relieved. Since then, he has increased the contraction by using the limb. Under ether, the leg was straightened without tenotomy, and afterwards bandaged to a straight ham-splint.

Tumor of Nose.—An ulcerating and painful growth of the size of a white

bean; located in the depression between the tip and ala of the nose, in a woman fifty-five years old. Excised by Dr. Clarke.

Deformity of Mouth—in a middle-aged woman, caused by salivation following accidental administration of calomel some months since. This had resulted in a loss of the teeth and of the alveolar border of the lower jaw; and in an ulceration so extensive that the subsequent cicatrization had tied the lower lip and tongue down to the lower jaw. The saliva constantly dribbled from the corner of the mouth, and eating and speaking were seriously interfered with. The lip was freely dissected away from the cicatrix and jaw, and, by means of a lozenge-shaped incision, the most prominent portion of the cicatrix was excised. The tongue was then loosened, so that the tip could be made to touch the roof of the mouth. The two sides of the incised lower lip were then carefully adjusted and secured in apposition by sutures.

Tumor of Neck—congenital, in a baby ten months old. It was as large as a medium-sized orange, of somewhat irregular shape, firm consistency, filling the whole of one side of the neck. A semi-lunar incision of four inches was made through the skin and platysma, the fascia divided on a director, and the more superficial part of the growth exposed. Its firm lateral adhesions were rapidly divided, and the bleeding vessels secured as they were cut. The deepest attachments involved the fascia overlying the carotid artery and internal jugular vein, and extended upward into the submaxillary triangle and forward to the larynx. After the dissection was completed, the carotid could be distinctly seen pulsating at the bottom of the extensive wound; the latter was closed by sutures. The tumor, on section, was largely cystic, but in part solid, and of a very composite character, containing fatty, bony and cartilaginous growths. Its microscopical appearance will be described in a future report.

Stricture of Urethra and Retention of Urine—in a man thirty-eight years old. Three years ago, he had gonorrhœa. Symptoms of stricture had existed a year. He entered the hospital with retention, the bladder so much distended as to reach the umbilicus, and a badly lacerated urethra from protracted and ill-devised attempts to relieve him. The number of false passages, the extravasation of blood into the corpora cavernosa and the œdematous condition of the parts, made any attempt to enter the bladder by the urethra impracticable; it was therefore punctured over the pubes, and two quarts of bloody and foul-smelling urine withdrawn by the aspirator.

Railroad Injury of Hand and Wrist—in a man twenty-seven years old. The bones were crushed and the soft parts extensively bruised and lacerated. Dr. Clarke amputated at the junction of the middle and lower thirds of the forearm by the flap method.

Hæmorrhoids—in a woman. Tied.

Injury of Foot—in a boy of fifteen years, caused by the paper-cutter used in a bookbindery. The phalangeal bones were crushed and the soft parts, on the dorsal and plantar surfaces, chopped and lacerated nearly to the middle of the foot. Amputation through the metatarsal bones was performed.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

THERE were no operations at the City Hospital last Friday. During the week, besides a number of smaller ones, were the following:—

1. *Amputation of Thigh.*—This was upon a boy, who had been in the hospital for three weeks for a railroad injury, causing sloughing of the soft parts and compound fracture of the upper part of the leg.

2. A woman, who had had a rusty nail thrust into her palm, entered the hospital some time ago with cellulitis extending to the elbow; gangrene followed, and the arm was amputated above the condyles.

3. *Ligature of Radial and Ulnar Arteries* for a glass cut of the palm.

All the above by Dr. Homans. W. P. BOLLES.

Correspondence.

Paracentesis Thoracis.

Pawtucket, R. I., May 11, 1874.

Messrs. Editors,—In No. xiv. of *The American Journal of the Medical Sciences*, there is a letter by Samuel A. Cartwright, M.D., dated Natchez, 1830, containing "remarks on a contrivance for draining the thorax of liquids, excluding, at the same time, the admission of air," with the statement that three cases of hydrothorax had been successfully treated by this mode of maintaining the opening. It is exactly the same device described in the Journal of May 1st ult. Some time since I called Dr. Bowditch's attention to it, believing it a valuable contrivance. Whether this gentleman has tried it, I cannot say. It seems, by Dr. Oliver's communication, that it is used quite generally in one of the London hospitals. An explanation of its merits is given in the letter I allude to, well worth the time to read, and, if not correct in every item, it is interesting to look back almost half a century and see how empyema was then viewed as a surgical case.

J. O. Whitney.

Neugebauer's Specula.

Boston, May 15, 1874.

Messrs. Editors,—Having recommended these specula, I feel it incumbent upon me to state that certain of those manufactured by Messrs. Codman and Shurtleff, of this city, are not perfectly adjusted to each other, and are, consequently, unserviceable. This firm request me to say that they will gladly give perfect instruments in exchange for any ill-fitting ones that may have been sold by them. I am very truly yours,

James R. Chadwick, M.D.

Obituary.

Dr. Jno. G. F. Holston, Sr.

At a meeting of the Zanesville Academy of Medicine, held Saturday, May 2, to take action in relation to the death of its late Fellow, Dr. Jno. G. F. Holston, Sr., which took place at Washington, D. C., May 1, 1874, the following resolutions were adopted.

That we, whose occupation has been to relieve human suffering, are reminded that the time must come when our places on earth shall be vacated. Therefore,

Resolved, That in the death of Dr. Holston, the Zanesville Academy loses one of its prominent members, and the profession at large an eminent physician and surgeon, of extensive professional and literary culture, ripe experience and accurate judgment; and society a warm-hearted, genial and generous member, whose life has been mainly devoted to the good of his fellow-beings.

Resolved, That we attend the obsequies of our deceased Fellow in a body.

Resolved, That we deeply sympathize with the family and relatives of the deceased.

Resolved, That the Corresponding Secretary transmit a copy of these resolutions to the family, the city Press, and the Medical Journals.

C. C. Hildreth, *Chairman.*

A. E. Bell, *Secretary pro tem.*

Medical Miscellany.

Dr. Sharpey has resigned the chair of physiology, which he has held at University College, London, since 1836.

Formula for Tasteless Cod-liver Oil.—℞. Ol. morrhuæ, ʒij.; spts. lavend. comp., ʒi.; spts. vini Gallici, ʒi. M.

Meeting of the Censors of the Suffolk District Medical Society.—We would call the attention of those wishing to enter the Massachusetts Medical Society to the fact that, owing to the proposed alterations in the by-laws, the meeting of the Censors advertised for June 28th will probably be the last before September.

A new Prize.—Dr. Dawson, late editor of the *American Journal of Obstetrics*, announces his intention of offering a yearly prize of one hundred and fifty dollars in gold for the best essay on some subject to be given out in that *Journal*, The subject for the first year is, "*Congenital Deformities, and Diseases depending on Maladies of the Uterus or Membranes*," and essays are to be sent, in the usual way, to Wm. Wood & Co., New York, on or before April 15th, 1875.

Silicate of Soda in Gonorrhœa.—At the Roosevelt Hospital, injections of the silicate of soda have been recently employed in the treatment of gonorrhœa, in both acute and chronic stages.

℞. Silicate of soda, 20 grains;
Water, 8 ounces. M.

The injections are given three times a day, with satisfactory results. No other treatment is combined with it.—*The Medical Record.*

Death of an Infant from the Application of an Acetate of Lead Lotion to the Nipples.—M. Bouchat mentions the case of a lady who, having used a lotion called *Eau de Mad. Delacour*, a favorite quack remedy in Paris for sore nipples, omitted to wash it off before putting the child to her breast. The child was shortly after seized with violent colic, and died in a few days with all the usual symptoms of lead-poisoning.—*Gazette des Hôpitaux.*

Lactation renewed in an Antiquated Matron.—A married woman, sixty years old, the mother of two children, whose mammæ had been completely shrivelled for twenty years, undertook the care of a sickly infant, the child of a deceased step-daughter. As the child was very fretful at night, she was accustomed to put the nipples of her dried up mammæ to the mouth of the infant, in order to quiet it. In the course of three weeks, to the surprise of the old lady, her breast began to expand, and soon yielded an abundance of milk, more than enough for one child. The flow of milk continued unabated until the child was old enough to wean.—T. A. Dargan, M.D., *Charleston Medical Journal*, April, 1874.

Rupture of the Vagina, with Protrusion of the Bowels.—A woman, living in Leipzig, sixty-three years old, mother of thirteen children, had suffered for thirty years with falling of the womb. The organ invariably came down on standing, sitting or walking, forming a tumor about the size of a child's head, but went up without any assistance, when she lay down. It appears that whilst she was ascending the steps of the village well with a weight on her back, the womb prolapsed, and as she endeavored to forcibly replace it, she felt something give way, and immediately the bowels protruded.

Eight hours afterward, she was found, by Dr. Fepling, in a state of collapse, with the small intestines protruding from the vulva, forming a mass about as large as a man's head. The intestines were cool to the touch, showed no signs of peristaltic movement, and were of a purple color. All

attempts at reduction proved ineffectual, and the woman died from shock, eleven hours after the accident.—*Archiv für Gynækologie*, vol. v., part i., 1873.

THE HAMPDEN DISTRICT MEDICAL SOCIETY has chosen the following officers:—

President.—Dr. W. J. Sawin, of Chicopee Falls.
Vice President.—Dr. H. G. Stickney.
Secretary.—Dr. G. S. Stebbins.
Councillors.—Drs. S. D. Brooks, Cyrus Bell, A. R. Rice, M. Calkins and G. S. Stebbins.
Censors.—Drs. E. M. Pease, Charles P. Kemp and David Clark.

NORFOLK DISTRICT MEDICAL SOCIETY.—At the annual meeting, at Hyde Park, May 13th, the following officers were elected for the ensuing year, 1874–75:—

President.—Dr. Robert T. Edes.
Vice President.—Dr. Silas E. Stone.
Secretary.—Dr. A. H. Nichols.
Treasurer.—Dr. J. S. Green.
Librarian.—Dr. D. S. Fogg.
Councillors.—Drs. R. Amory, G. J. Arnold, J. W. Chase, H. Blanchard, B. E. Cotting, W. C. B. Fifield, F. F. Forsaith, C. C. Holmes, J. Stedman, S. E. Stone, C. C. Tower.
Censors.—F. W. Goss, W. B. Trull, C. C. Tower, G. Faulkner, E. T. Williams.
Commissioner on Trials.—Dr. Robert Amory.
Committee on Supervision.—Drs. W. S. Everett, B. Cushing.

NOTES AND QUERIES.

STAT UMBRA.

"IT would appear that a good thing was never so badly managed in Boston as were the arrangements for Hospital Sunday. Somebody fearfully blundered about the details."—*Boston Transcript*, May 14, 1874.

The truth is, that the scheme did not approve itself to the "sober second thought" of the regular profession, nor to those, generally, connected with the large and really useful hospitals, one of the largest of which, and as needy as any, was wholly ignored. In fact, it was started in the interests of weakly or quackish enterprises. It has failed of good elsewhere. Let us have no more of it. VERITAS.

DIED,—At Newburyport, 17th inst., Thomas Sparhawk, M.D., formerly of Amesbury, 67.—At Williamsburg, 16th inst., by the disastrous flood in that neighborhood, E. M. Johnson, M.D., 35.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending May 9, 1874.*

Boston, 143; Worcester, 15; Lowell, 24; Milford, 7; Chelsea, 4; Salem, 6; Lawrence, 11; Springfield, 8; Lynn, 5; Fitchburg, 4; Taunton, 8; Somerville, 8; Fall River, 12; Haverhill, 4; Holyoke, 2; Pittsfield, 6. Total, 267.

Prevalent Diseases.—Consumption, 50; pneumonia, 36; scarlet fever, 24.

No deaths occurred in Newburyport.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 16th, 159. Males, 94; females, 65. Accident, 3; abscess, 1; apoplexy, 1; anæmia, 1; inflammation of the bowels, 3; disease of the bladder, 1; bronchitis, 9; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 6; cancer, 3; cholera infantum, 1; consumption, 35; convulsions, 6; debility, 2; dropsy of the brain, 2; drowned, 2; dysentery, 1; diphtheria, 1; erysipelas, 2; scarlet fever, 12; typhoid fever, 2; gangrene, 1; gastritis, 1; disease of the heart, 6; disease of the kidneys, 6; congestion of the lungs, 1; inflammation of the lungs, 7; marasmus, 2; old age, 8; paralysis, 3; pleurisy, 1; premature birth, 6; peritonitis, 1; puerperal disease, 3; remittent fever, 1; rheumatism, 4; scrofula, 2; syphilis, 1; suicide, 1; tabes mesenterica, 1; teething, 1; tumor, 1; thrush, 1; whooping cough, 4.

Under 5 years of age, 57; between 5 and 20 years, 17; between 20 and 40 years, 30; between 40 and 60 years, 25; over 60 years, 30. Born in the United States, 113; Ireland, 32; other places, 14.

THE

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Original Communications.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By GILMAN KIMBALL, M.D., Lowell.

IN the *New York Medical Record* of Oct. 1, 1873, we notice an article by Alex. J. C. Skene, M.D., on "Drainage through the Cul-de-Sac of Douglass, with the history of a case." Previously to the appearance of this article, a pamphlet upon the same subject, with five cases, had been published by J. Marion Sims, M.D., of New York.

The purpose of both these authors was to set forth a mode of procedure, the effect of which was to relieve ovariotomy of its most common cause of danger, to wit, septicæmia. The merits of the respective methods of treatment, as shown in the several cases referred to, I am not disposed to discuss. I desire, however, to bear testimony to the great importance and practical value of the *principle* they illustrate. To this end, I submit the following cases, occurring in my own practice within the last few years. In several instances, it will be seen that the means I first adopted to secure drainage consisted simply in establishing an opening through the cul-de-sac of Douglass, and passing the ligatures of the pedicle through the same, to be carried out by the vagina. At first, I was led to believe this plan would prove effectual and satisfactory. Upon a more extended trial, however, I found it could not always be relied on as accomplishing all that had at first been expected of it. The mere puncture for the transmission of ligatures, though sufficient, perhaps, to effect drainage for a few hours, I found liable, in the course of the second or third day, to become completely and permanently closed. The continued accumulation within the pelvic cavity being thus prevented from finding an outlet, symptoms of blood-poisoning soon made their appearance, and with consequences no less disastrous than if no attempt at drainage had ever been made.

It was with the view of obviating this difficulty that I was induced, several years since, to adopt the more effectual plan of drainage, by means of a *canula* introduced *per vaginam* into the cul-de-sac of Douglass, and allowed to remain there till all discharge in that direction had ceased.

It is not claimed that recovery has followed in every instance where this plan has been pursued, for, not unfrequently, other difficulties than septicæmia are encountered in connection with the removal of an ovarian tumor, which, of themselves, necessarily render recovery impossible. Allowing, however, that blood-poisoning is, of all others, the most frequent cause of death following ovariotomy, and that this

cause consists in the accumulation and absorption of a putrid fluid confined within the peritoneal cavity, its speedy and effectual removal becomes, of course, of the highest importance.

The plan of procedure as set forth in the following cases may not be, in all respects, the most perfect that could be devised; yet, after having thus far proved so satisfactory, I see no inducement to abandon it for the adoption of another less simple, and which, as yet, furnishes no good evidence of better results.

Case I.—Miss S., of Portland, Maine, 38 years of age, unmarried, naturally healthy, observed for the first time, early in the spring of 1867, the beginning of an unusual enlargement of the abdomen. For several months, its increase was slow, and gave neither anxiety nor personal inconvenience. In the course of the following winter, the enlargement became more decided, and before the end of the year it involved a large portion of the abdominal cavity. Its effect upon the system also became more marked. Excessive and painful distention, embarrassed breathing, emaciation and œdema of the lower limbs, all showed the constitution to be rapidly giving way.

Being at this time in Europe, she availed herself of the opportunity to consult an eminent surgeon in Paris. He pronounced her disease ovarian, but prescribed no medical treatment, nor did he advise any operation.

In July, she returned home. Her passage to New York was not uncomfortable, but from New York to Portland it was distressingly painful, and immediately followed by such an increase of unfavorable symptoms that she decided at once to have the disease removed. In pursuance of this decision, and in accordance with the expressed wish of herself and family, I visited her in July, 1867.

Although only two or three weeks had elapsed since her arrival home, her disease meantime had made rapid progress; and, altogether, her condition was such as to show that the operation already decided upon could not well be delayed.

All preliminary arrangements having been previously attended to, the operation was performed, with the assistance of Drs. Davies, Gilman and Wood, the 27th of July, 1868.

An incision through the parietes, merely large enough to expose a limited portion of the walls of the tumor, was first made below the umbilicus. A large cyst was tapped, and six quarts of dark-brown, viscid fluid were drawn off through the canula. The remaining portion of the tumor was made up of a large number of smaller cysts; some of these were punctured, but without much effect in reducing the general bulk of the tumor. The incision was now extended several inches above the umbilicus, and downward nearly to the pubes. In attempting to dislodge the disease, extensive adhesions were encountered, chiefly in front and on one side. They were separable in part, without much resistance; several thick bands, however, were broken through only with a good deal of force, and, consequently, with considerable laceration of peritoneal tissue; no cutting was necessary. Posteriorly, the tumor was adherent to the transverse colon to the extent of six inches. Its separation was attended with some bleeding, but not enough to demand ligatures. Before the entire mass was dislodged, several cysts were unavoidably ruptured, their contents escaping into the peritoneal cavity. This was an embarrassing circum-

stance, and it necessarily prolonged the operation. The pedicle was broad and thick, and too short to be comfortably fixed between the lips of the incision. After tying it in two parts, and severing it as closely as possible to the tumor, the stump was allowed to drop fully into the pelvis. The ligatures were not brought out at the lower angle of the incision, according to my usual practice, but passed down through the posterior uterine cul-de-sac and out by the vagina—a procedure adopted for the first time in my operations of this kind, and on this occasion for the special purpose of providing, as far as possible, for the direct escape of future accumulations occurring within the pelvic cavity. Such accumulation there was the more reason to apprehend from the nature of the embarrassing complications already referred to.

Although great care had been observed in cleaning the peritoneal cavity of all foreign material escaping from the ruptured cysts, it was to be feared that more or less of it might still remain behind, and thus become the source of serious mischief. The above-described plan for disposing of the ligatures struck me as the best that could be devised to obviate this evil. The wound was dressed after the manner that has been fully described in previously published cases, where adhesions were extensive, and the peritoneal lining of the parietes had consequently suffered much laceration, as in those cases the bleeding surfaces were kept outside by everting a portion of the parietes on either side of the incision, and securing them in close apposition by deep clamp sutures; the free edges of the parts so everted being brought snugly together by a proper number of superficial stitches. Outer dressing was applied after the usual manner, as soon as the patient had been placed in her permanent bed.

Except in one particular, the character of the symptoms following this operation furnished nothing especially worthy of remark; nothing different from what occurs ordinarily with patients making a good recovery.

In the course of a few hours after the operation, there came on excessive vomiting. For two days, this continued with scarcely any abatement; it then began gradually to subside, but recurring at short intervals for more than two weeks. All this while, however, there were no marked signs of peritonitis, no tympanites, no tenderness of abdomen, nor, indeed, any symptom of a threatening character, save the one just referred to.

Immediately following the operation, and during the early period of convalescence, very little was done in the way of treatment, local or general. The system was sustained by a due amount of nourishment, and, occasionally, an opiate was given for the purpose of quieting restlessness. The nourishment consisted mainly of beef-tea and animal broths, and, on account of irritability of the stomach, it was administered for a time in the form of enemata.

The recovery in this case seemed to be complete and altogether satisfactory. In the course of some months, the patient returned to her duties as teacher, apparently in perfect health.

It should be stated, in reference to the manner of disposing of the ligatures of the pedicle by passing them out by the vagina, that the escape of a large quantity of fœtid matter in that direction furnished most satisfactory proof that the plan had been wisely adopted. The

vomiting, which at first was so troublesome, and even alarming, was evidently dependent, in a great degree at least, upon the presence of poisonous matter within the pelvic cavity, for, coincident with the event of a discharge through the vagina, the vomiting began to abate, and in a few days ceased altogether. It is certainly not unreasonable to conclude that a different result would have followed the operation had the pedicle been differently dealt with.

A report of this case was written out some three years since, with a view of having it published. About that time, however, having occasion to visit Portland, the patient took the opportunity to consult me in relation to the recent appearance of what she feared was *another tumor*. On examination, I discovered that her fears were not altogether groundless. A hard lump, the size of a hen's egg, had made its appearance just below the umbilicus, in the median line, and involving the cicatrix consequent upon the previous operation, not movable, but firmly adherent to the inner surface of the parietes. I was not clear as to deeper connections.

Besides this local development, I noticed a marked change in the general condition of the patient. She complained of pain in the abdomen, loss of appetite, debility, depression of spirits, and a sense of "uneasiness" that nearly unfitted her for her recently assumed duties as teacher. It was a state of things that led me to suspect the development of some malignant disease, similar to what I had witnessed in several instances, where ovariotomy had been followed within a twelvemonth by a cancerous degeneration of the remaining ovary. Under these circumstances, I concluded to postpone publishing the case till a later day.

My fears in regard to the second development of disease referred to have since been fully realized, and even sooner than I had calculated.

About the first of October, 1870, some five months after calling upon me in Portland, she came to consult me again in Lowell, immediately on my return from Europe. Her condition had undergone a great change, and most decidedly for the worse: great emaciation, loss of appetite, extreme debility, cachectic countenance, pulse 130, all indicated to my mind but too clearly that the case had passed beyond the possibility of relief. Examining the case locally, this impression was more fully confirmed. The small lump I had noticed a few months before had gone on rapidly increasing in size, till now it had become a large irregular, semi-solid mass, occupying a large portion of the abdominal cavity. The presence of ascitic effusion and œdema of the lower limbs were additional circumstances favoring the idea of malignancy.

The patient had allowed herself to entertain the hope of getting relief from a second operation. It became my painful duty, however, after a careful consideration of the case, to declare to her that an operation under existing circumstances would, in all probability, prove fatal. This announcement was received with remarkable calmness, and apparently with little or no mental agitation; evidently it was not altogether unexpected.

On her return to Portland, she very soon fell into the hands of another surgeon (more reckless than prudent), who took a more favorable view of the case than I had done. A consultation was had, and an operation decided upon. The disease was removed the 27th of October, 1870, and death followed sixty-four hours after.

Case II.—Mrs. S., of Cape Elizabeth, Maine, aged 43 years, married, six children, thinks her disease began two years ago; not attended with much suffering or inconvenience till lately; general condition good; not much emaciated; no swelling of lower limbs, or other evidence of impaired constitution; at present, suffering, distention of abdomen, and difficulty of breathing while lying down. I first saw the patient on the 26th of February, 1868, and readily diagnosticated ovarian disease, of a multilocular character. All necessary preparations had been attended to, and the operation was accordingly performed at once, Drs. Ludwig, Davies and French assisting.

The tumor having been brought to view through a small incision, a prominent cyst was punctured with a trocar. The contents were albuminous, and too thick to pass the canula. The cyst was finally evacuated by a large incision through its walls. As it was seized by vulsellæ and drawn forward, other cysts came to view, and were evacuated in turn, no escape of contents into the peritoneal cavity occurring.

There were slight adhesions to the right side, and to the omentum. The slender pedicle was tied, and the stump passed back and ligatures carried out by the vagina.

After sponging out from the pelvic cavity a pint or more of ascitic fluid, the wound was closed with deep clamp sutures, and covered with the usual dressings.

For two days subsequent to the operation, the patient was quite comfortable. On the third day, the symptoms became threatening—pain in abdomen, vomiting, quickened pulse and prostration. The pain, however, was controlled by laudanum, forty drops, administered by the rectum. The vomiting also subsided soon after. The same day, too, a free discharge of fœtid matter took place through the vagina. The obvious cause of trouble being now removed, there was no further interruption to a continued convalescence, and ultimately to a perfect recovery. The threatening symptoms that made their appearance so suddenly on the third day after the operation were evidently of a septicæmic character. This was shown by the immediate and complete subsidence of all trouble the moment an escape of matter took place by the vagina. The advantages of the plan adopted to secure this timely discharge seem too obvious to admit of any question.

Case III.—Mrs. L., of Lawrence, Mass., a stout, healthy woman, 35 years old, married, with three children, began to have enlargement of the abdomen about a year ago, but suffered no pain or other inconvenience till within the last six or seven weeks. Within that time, the enlargement has increased rapidly, and has been attended with much suffering—pain, debility, breathlessness, swollen limbs, inability to lie down, or even get on or off the bed without help.

I was first called to see her July 30, 1868. Found her as above stated. The case was diagnosticated as unequivocally ovarian, and one that justified an operation. It being a question as to when it should be performed, the patient desired time to consider. The next day I was notified that an operation had been decided upon for the 2d day of August. It was performed, accordingly, on that day; Drs. Dana, Seyfarth, Chamberlain and Carleton were present, and assisted.

An incision through the parietes, seven inches in length, was followed by an escape of a pint or more of ascitic fluid. A large cyst

was tapped, and emptied of ten quarts of a dark, chocolate-colored fluid; the sac being drawn forward, another cyst appeared and was tapped. The contents were of the same character. There were still other cysts, but of less size. In attempting to dislodge the entire mass, it was found that the disease was extensively adherent to the parietes, in front and on the side; also, to a considerable extent, to the omentum. In overcoming these adhesions, there was, necessarily, a good deal of laceration of tissue, with considerable bleeding. The pedicle, unusually tender and short, I tied with a single ligature, which was carried back and out by the vagina through a canula, which was allowed to remain. Bleeding portions of omentum were gathered within a single ligature and cut away, the stump drawn forward and secured between the lips of the incision. Several shreds of torn peritoneum were also cut away, after being first ligatured with fine silk. The bleeding, consequent upon breaking through the adhesions, was very troublesome, and required the application of a good many ligatures, all of which were cut short.

The incision was closed with clamp sutures, the torn, peritoneal surfaces being mostly, but not entirely, excluded.

One-fourth grain of morphia injected under the skin before placing the patient in bed. The operation lasted nearly three hours. This was on account of the difficulty in finding and securing the bleeding vessels. Weight of tumor, thirty-five pounds.

Aug. 3d.—Morning after operation. The patient passed a pretty comfortable night. Two or three twinges of pain in the abdomen were relieved entirely by two doses of laudanum, 35 drops each, administered by the rectum. The reaction was decided. Pulse, 120; skin, moist. The urine was passed voluntarily; no nausea; the countenance good and cheerful.

4th.—She passed a good night, without signs of inflammation or other bad symptoms.

6th.—Still doing well; pulse reduced to 90; natural evacuation from the bowels.

7th and 8th.—Symptoms still as favorable as could be desired. The patient has an appetite, and begins to take substantial nourishment.

12th.—There were threatenings of tetanus; the tongue seemed to be swollen, and there was slight stiffness of jaws while attempting to chew a piece of beef.

13th.—The muscles of throat were affected, and there was difficulty of swallowing, but no pain; otherwise the patient felt pretty well.

14th.—The jaws nearly closed; in other respects, about the same as yesterday.

15th.—She was seized with sharp, frequently recurring, spasmodic pains in left hypochondrium; soon after, in the right. Otherwise, there was no special change.

16 and 17th.—Symptoms pretty much the same in character, but more severe.

18th.—Spasmodic pains less frequent, but more severe. Muscles of back becoming rigid, those of the neck, especially. Slight opisthotonos.

19th, 20th and 21st.—No marked change in most of the symptoms during the past three days, except in severity. Swallowing impossible; opisthotonos decided.

In attempting to raise the head, the whole body was lifted. Pain not constant. She suffered mostly from spasmodic pains, especially through the muscles of the abdomen.

22d.—Death took place at 7 o'clock, this morning, 20th day after the operation.

Immediately upon the appearance of tetanic symptoms, narcotics, together with large doses of bromide of potassium, were administered, but with no apparent alleviation of symptoms. To relieve the extreme suffering during the tetanic spasms, chloroform was used liberally, but the effect was only momentary.

In regard to the plan of drainage in this case, it should be stated that directly after the completion of the operation, an abundant flow of bloody serum took place *per vaginam*. It continued, to a greater or less extent, as long as the patient lived. The discharge became fœtid and exceedingly offensive on the second day, and it is surely good evidence of the value of the method of getting rid of it that, from first to last, there were no signs of septicæmia.

The occurrence of tetanus was, of course, an event entirely unexpected, and especially after the patient had passed through so long a period without a single untoward symptom. As for its cause, there seems to be no satisfactory explanation. Every circumstance of the case, up to the twelfth day after the operation, gave unusual promise of a good result. Fortunately, tetanus is an accident that is rarely met with in ovariotomy. The case in question is the first and last that has occurred in my experience.

Note.—The remainder of Dr. Kimball's series of cases will appear at intervals among other original communications.—Eds.

Trichinosis.—The German periodicals report several cases of trichinosis. In Hasselbusch, early in March, a lady, her servant, and eight other persons were infected by eating a small quantity of raw pork. Several children also in Rapendorf are said to have been attacked with trichinosis in consequence of the use of some sausages given them by their companions in Hasselbusch. In Lissa, five persons in a merchant's house have been attacked with trichinosis. They had partaken of a ham, which, according to all accounts, was well pickled and smoked, and boiled for two hours. From further inquiries, it was ascertained that the remainder of the ham was full of trichinæ. Its vendor was ill from the same cause.—*British Medical Journal.*

Prevention of Post-Partum Hæmorrhage.—Dr. Alfred Godrich recommends the plan of using the binder not only after, but during labor. The application of strong and continuous pressure, after the escape of the liquor amnii, serves to give support to the abdominal muscles, and, at the same time, compensates in some measure for the loss of pressure sustained by the large vessels and viscera of the abdomen, and thus averts the danger of hæmorrhage. Dr. Godrich asserts that he has for some years applied the binder according to this method, uniformly in all labors, and since the adoption of this plan he has never met with a case of post-partum hæmorrhage.—*The British Medical Journal.*

Progress in Medicine.

REPORT ON DISEASES OF THE CHEST.

By F. I. Knight, M.D.

[Concluded from p. 503.]

Albuminous Expectoration after Thoracentesis.

The operation of thoracentesis has recently come into such general favor, that whatever new is written pertaining to it is received with general interest. The French journals, during the past year, have been full of articles on *albuminous expectoration* after thoracentesis. This, according to Dr. Terrillon, whose thesis *(De l'Expectoration Albumineuse après Thoracentise*, Paris, 1873) excited the discussions, is a rare accident following certain cases which cannot be determined beforehand, and which may cause death. It consists in the more or less abundant expectoration of a sero-albuminous liquid, with a persistent froth on its surface. In most cases, it takes place from ten minutes to an hour after the operation. This accident is generally harmless, but it may very rapidly cause the death of the patient. In the fatal cases, death may be explained by a pulmonary lesion on the opposite side, preventing expectoration.

The *British Medical Journal*, of Oct. 4 and 11, 1873, contains a good summary of the discussions on this subject, by M. Labbée, taken from the *Mouvement Médical*. M. Terrillon did not wish in any way to attack the favorable position of thoracentesis; his aim was to draw attention to that phenomenon, which M. Pinault was the first to point out in his thesis in 1853, in which he sought to arrive at its rational explanation. In 1869, M. d'Espine communicated to the Société de Biologie two instances of abundant serous expectoration following thoracentesis. In 1872, M. Woillez, in his clinical treatise on acute affections of the respiratory organs, quoted observations of this kind. M. Terrillon gives twenty-one observations, six of which have not been published before. M. Marotte and M. Béhier have communicated to the Academy of Medicine facts on this subject worthy of attention.

The expectoration of albuminous fluid after thoracentesis, according to M. Terrillon, presents three different characters, according to the quantity expectorated and the gravity or mildness of the symptoms. The mild form is characterized by slight dyspnœa, and by the expectoration of a fluid in which the presence of albumen is recognized by nitric acid, and which varies in quantity from a few grammes up to seven or eight hundred. Duration, from a few hours to a day. In the intense form, there is acute dyspnœa, abundant expectoration (1,200, 1,500, 2,000 grammes, and even more), frequent cough—generally spasmodic—accompanied by fine subcrepitant râles. Duration, several hours to a day. In the third and most serious form, the patient, after twenty or five and twenty minutes of comparative quiet, is suddenly seized with acute, very intense and most painful dyspnœa, with spasmodic cough, accompanied by a frequent spitting of froth, after which death supervenes, with all the symptoms of asphyxia, caused by the accumulation of liquids and spumous matter throughout the respiratory system. M. Terrillon relates only two fatal cases out

of twenty-one, to which MM. Béhier and Lionville have added the record of a third. The escape of this albuminous liquid generally takes place from ten minutes to one hour after thoracentesis. It is of a yellowish color, more or less transparent, according to the amount of expectoration; a persistent froth forms the upper layer, the middle layer being represented by the fluid, and the lower layer by a deposit of mucous products given off by the bronchi. It coagulates when treated with nitric acid.

The chemical examination made by M. Bergeret gave 1·61 grammes of albumen in 100 of the pleural fluid, and 1·42 grammes in 100 of the expectorated fluid.

With regard to a possible relation between albuminous expectoration and copiousness of the effusion, M. Terrillon's cases show an abundance of liquid in the pleural cavity, of which the average was from two to two and a half quarts. As to the more or less grave complications which may have preceded the operation, it is easy to agree with M. Terrillon that they could not possibly have had any direct influence on the accident under consideration. The syncopal condition, the cough, the striking of the lung against the canula, have all been given as predisposing causes, but very reasonable explanations have been opposed to such interpretations of the phenomena. The influence of the nature and age of the effusion on the production of the expectoration has been decisively proved to be *nil*, since the majority of the cases (15 out of 20) were instances of acute pleurisy, in which thoracentesis was performed twenty or thirty days after the commencement of the disease. One circumstance remains to which some importance might be attached; the rapidity with which the pleural liquid made its escape was noticeable in all the cases cited by M. Terrillon. The expectoration can certainly not be confounded with bronchorrhœa; its difference of character is quite clear, as shown by the reaction given by adding nitric acid.

Four opinions have been given as to the manner in which the albuminous expectoration takes place:

1. Perforation by the trocar. This opinion has been enunciated by MM. Woillez and Marotte. Woillez thinks puncture of the lung more common than is usually supposed. At the meeting of the Société Médicale des Hôpitaux, on June 28th, he dwelt upon the fact of recent puncture of the chest; on the physical and chemical similarity of the fluid extracted from the pleura to that expectorated; on the issue of a small quantity of blood by the canula; and, above all, on the presence of blood in the earlier portions of the expectorated liquid; finally, on the issue of bubbles of air through the canula during the course of the operation. In the cases under consideration, however, not one of the true signs of perforation was noted; neither issue of blood through the canula, nor pneumothorax. No perforation has ever been found on autopsy. In the majority of cases, the effusion was so large that the lung was presumably far removed from the thoracic wall at the point of puncture, unless adhesions had previously taken place. M. Behier points out that if albuminous expectoration arose from perforation, it would not take an hour to come on.

2. Spontaneous perforation. M. Féréol, in order to explain this, imagines a special change, characterized by destruction of the epithelium and the connective tissue of the pleura, a sort of membrane be-

ing thus formed which would allow the filtration of the pleural liquid into the lung, and its expulsion by the bronchi, without allowing the air to pass. It is as difficult to demonstrate the existence of this perforation without pneumothorax, as it is rare to meet with pleuro-bronchial perforation in the adult. All observers have seen and cited instances of spontaneous perforation, without pneumothorax, in purulent pleurisy, but not at all, or very rarely, in serous pleurisy. M. Barthez has demonstrated that, in children, absence of pneumothorax is the rule. M. Féréol says that, there having been a preparatory process, ulcerative or otherwise, a fit of coughing causes perforation. But this would be most likely to occur immediately on the withdrawal of the effusion, and so the albuminous expectoration would appear at once.

3. Reabsorption of the liquid remaining after thoracentesis. This theory is contradicted by the anatomy of the lung, and by the physiology of combined absorption and circulation, which teach us, as M. Terrillon says, that the fluid passes into the vessels and is carried into the general circulation.

4. Transudation of the sero-albuminous liquid through the alveolar walls, in consequence of rapid pulmonary congestion and œdema. This opinion was enunciated by M. Pinault, in 1858, and was repeated with much clearness and force by M. Hérard, in 1872. It is based on sound physiology and on pathological phenomena, and is upheld by the majority of those who have taken part in the discussions; among others, by MM. Hérard, Moutard-Martin, Béhier, Dujardin-Beaumetz and Brouardel, and is demonstrated by clinical observation and microscopic examination. Physiology explains this transudation as follows. Section of the pneumogastric nerve brings on a frothy effusion in the bronchi, and a sanguineous engorgement of the pulmonary tissue. One of the two products of secretion is nothing but bronchial mucus; the other, which is most abundant, is serous matter. M. Jaccoud, touching on the œdema of congestion, says, "constituted by a serous exudation in the walls and on the free surface of the alveoli, œdema is the constant and necessary consequence of all pulmonary congestion of a certain standing." M. Charles Robin acknowledges that the capillary network of the surface of the alveoli may, under the influence of either temporary or permanent congestion, allow a certain amount of fluid, quite distinct from the bronchial mucus, to exude.

M. Moutard-Martin says:—"You cannot clinically establish your so-called pulmonary perforation, while on our part we do clinically establish the sero-sanguineous congestion of the lungs, by the presence of slight dulness and subcrepitant râles, of pulmonary œdema and hæmoptysis." That it may be proved after death is shown in M. Gombault's case, reported by Terrillon. In the explanation of this transudation, it is easy to understand that when a lung has been compressed for a certain time, when it has been excluded from the air, that natural excitant, penetrating rather suddenly into the pulmonary vesicles, would produce irritation of the mucous membrane, and an excitement of the vessels, which, in a very short time, would be followed by paralysis, of which the inevitable consequence is passive congestion with œdema. If we add to this the destruction of the epithelium, which clothes the alveoli and strengthens the walls of the

capillaries, the probability of MM. Hérard's and Moutard-Martin's explanation will be much increased. In certain cases of albuminous nephritis, the desquamative congestion at the commencement causes the capillaries of the kidney to allow the albumen to escape into the tubules and mix with the urine; here the modified alveolar mucous membrane readily allows the albuminous serosity to filter through.

The very complete researches of M. Dujardin-Beaumetz show that the two fluids (i. e., the pleural effusion and the fluid expectorated) have a very distinctly marked difference of character. He says:—"While both fluids contain urea, mucin and albumen, the expectorated fluid contains only 1 part in 1000 of albumen; the other, on the contrary, contains from 66 to 88 parts in 1000." M. Louis Lande, Professor in the Bordeaux School of Medicine, proves the non-identity of the two fluids in a decisive manner, by citing the cases of Dr. Musson and Dr. H. Gintrac, in which the phenomenon came on after thoracentesis, performed for purulent effusion.

In the *Gazette des Hôpitaux*, for June and July, 1873, M. Revillout publishes cases in which attacks of albuminous expectoration came on, not only without thoracentesis, but even without the presence of any pleurisy. In one case, an old man, subject to asthma, but who had never had pleurisy, was on two occasions seized with alarming crises, characterized by cough, which at each respiratory movement brought up a mouthful of albuminous fluid tinged with blood, with which the patient soon filled a large basin. In a similar case, M. Jalabert, rejecting all idea of a pleural origin for the fluid, especially as the patient was subject to similar attacks, which were completely relieved by bleeding, did not hesitate to diagnosticate pulmonary congestion, with excessive bronchial secretion, and combatted the attack by agents capable of exciting the contractility of the small vessels, such as ergotine and syrup of belladonna. These cases, M. Revillout remarks, lead us to form more just notions of acute pulmonary œdema.

It is, then, to the fourth explanation of the phenomena of albuminous expectoration that the balance of evidence inclines.

A New Sign of Death.—M. Bouchut stated, at the Académie des Sciences, that at the moment of death gases which are normally imprisoned in the venous blood are disengaged, forming a pneumatosis of the veins. The pneumatosis of the veins of the retina is easily appreciable by the ophthalmoscope, and constitutes an immediate and certain sign of death. This pneumatosis is indicated at the moment of death by the interruption of the column of blood in these veins, a phenomenon similar to that which is observed in the interrupted column of a thermometer with colored alcohol.—*The Medical and Surgical Reporter.*

For Bleeding at Nose.—"Holding a living toad near the nose, it stops the blood instantly, because the blood flies from its enemy." And again: "A certain man that had bled four and twenty hours was thus cured; he took a scain of black thread, and put one end of it to his nostril, and set fire to the other end, and so soon as the smoke came to his nostril, the blood presently stopped."—*Culpeper*, 1656.

Formula for the Relief of Flatus.—Employed at the Roosevelt Hospital. ℞. Pulv. camphoræ, pulv. capsici, pulv. zingiberis, of each, gr. i. M. In pilulas No. vi. dividend. S. One pro re natâ.

Bibliographical Notices.

Second Annual Report of the State Board of Health of Minnesota. January, 1874. Printed by Authority. St. Paul: St. Paul Press Company.

Dr. Charles H. Hewitt, the Secretary of the State Board of Health of Minnesota, has presented to the Legislature of that State this second Report, by Dr. D. W. Hand, Chairman of the Board, and it is a very creditable document. Looking through its pages, we have noted several important points, to each of which, however, only brief allusion can be made. First, the pertinent remarks in reference to the *prevention* of smallpox. We heartily concur in the reporter's opinion that "there is no excuse" for that "popular belief" that nothing is to be done "except in the presence of some great epidemic, as smallpox or cholera." In reference to smallpox, we, here in Boston, a little over a year ago, had pretty severe practical demonstration that the do-nothing policy of a Board of Aldermen, acting, forsooth, as a Board of Health (!), not only invited the disastrous epidemic which invaded our city and its neighborhood, but, by an almost unparalleled sluggishness and incompetency, fostered the uncongenial guest, and solicited its stay. To the truth of which let the rapid disappearance of the loathsome malady, when dealt with as an enemy, in a decided, thorough and common-sense manner, testify.

The very large death-rate amongst children in 1872 is pointedly referred to by the reporter. "Nearly one-half of all who died were children under five years of age." *(Report*, p. 7.) Is not this fearful loss of children reported, or acknowledged, in nearly every community? Has the death-rate from *cholera infantum* diminished, at all, of late years? Has any thorough *exposé* of this dreadful scourge been given to us by a competent hand? Why have we not extended examination of this disease and its causes, and a monograph suited to its importance? If, as the reporter suggests, this, and very many other diseases, now so destructive of human life, are "preventible," why are they not stopped, or, at least, checked? "Every one of those diseases is preventible, that is, the causes of some of them can be entirely abolished, and the influence of them all can be greatly diminished by the operation of local Boards of Health." *(Loc cit.* p. 7.) Of this, there can be no doubt. Let us hope, not only that such Boards will be founded, everywhere, but that they will courageously and faithfully do their duty.

Some judicious remarks are next offered upon "the causes of disease." Amongst these, the fact is noticed that diseases often reach people through the "water they drink." We take up this already well-known point, with the intention of alluding to the contamination of sources of drinking-water, by reason of their close proximity to cemeteries—especially in the suburbs of populous towns. We suppose there is often no doubt of this. And, in the inevitable crowding of such depositories of the dead, which time brings with it, what is to prevent a series of still more pernicious results? We confess this to be—as lately it has been urged—a potent argument for *cremation.*

We fully agree with the reporter when he writes—"the executive officers of such Boards [of Health] should be educated and experienced physicians." (P. 8.) And we endorse, fully, his statement that "an active and intelligent Health Board can do these things:—

"1st. It can prevent the occurrence and spread of epidemics, as a rule.

"2d. It can diminish the average sick-rate as much as one-fourth, and the average death- [rate] probably one-fifth, in amount.

"3d. Among the very poor, living in crowded tenement houses, and unable to choose or regulate their sanitary surroundings, it can do even more than this.

"4th. In greater proportion than the reduction of the sick- and death-rate, will be the gain in health and productive capacity, and therefore the increase

in pecuniary and social independence, among the classes who now make the greatest demand on the public funds.

"5th. It can reduce the infant mortality, now nearly one-half of the total, and in so doing, increase the health and vigor of offspring, and diminish the number of weakly imbeciles who are now adding largely to the charitable outlays of the State. [What the reporter says for his own State, will equally answer for others.]

"6th. The local health board may be easily made the centre and source of sanitary knowledge for the population among whom and for whom it labors, and should, in the school, in society, among all classes of the population, in the press, as in the town council, be a mentor and instructor in the art of private and public health. There is no town in the State so small, in which such a board is not necessary to secure for the people the same care in *preventing* disease as they now demand for its *cure*."

The very true observation is made (p. 17) that "the popular interest in hygiene is a remarkable fact of our time. Never before has that interest been so general." In this connection, we may refer, with pride, to the labors and published reports of the "State Board of Health of Massachusetts."

"A Report on Inebriate Asylums," by Dr. Hewitt, succeeds the general report we have been noticing. It is quite full and is carefully prepared. Its author, previous to making it, visited various inebriate asylums, by direction of Governor Austin, of Minnesota. He "carefully examined" the Washingtonian Home, Boston, Mass.; the Inebriate Asylum, Ward's Island, New York Harbor; the Inebriate's Home, for King's County, N. Y. (near Brooklyn); the New York State Inebriate Asylum, Binghamton, N. Y.; the Washingtonian Home, Chicago, Illinois. Dr. Hewitt conferred with "nearly every man associated with inebriate asylums in the United States," and also made a "valuable collection of laws, charters, rules and regulations, reports, &c., both American and foreign." These he presented, with his report, to the Legislature of Minnesota, as aids in framing a law for organizing an Inebriate Asylum. The entire report is well worthy of perusal.

Other sub-reports follow: one on the "Statistics of drunkenness in Minnesota, for 1873," by Dr. Hewitt; on "Typhoid Fever," by Dr. Hand, in which reference is made to our State Board of Health Reports (1871), Dr. Geo. Derby's report on "The Causes of Typhoid Fever in Massachusetts."

Quite a valuable communication follows, from Rev. A. B. Paterson, entitled "Remarks on the Climate of Minnesota." The author says that "what he presumes to offer is done with great diffidence, and only at the solicitation of a medical friend." Whilst, as the author himself implies, there is not much, if anything new—to the medical reader at all events—in his paper, certain positions are exceedingly well taken. For instance, what he says about the season for going to Minnesota, in the case of invalids. "Fifteen years ago, the great influx of invalids took place in November, in order that they might reach here before the close of navigation. A worse time could not be selected. It is the dreariest, darkest, most unpleasant month of the year. And to encounter its influence on first arriving, is most depressing and dispiriting. An invalid needs to come early enough in the summer to try fully the effect of the climate upon his lungs, and to have experienced some little improvement in order to fortify him for the attacks of winter, and to obtain benefit from its keen air. Then an outdoor life can be almost constantly maintained. Then those resorts for pleasure and health, now so numerous in Minnesota, can be visited, and hunting and fishing give occupation to the mind. The middle of June, therefore, when the lingering roughness of spring has left the air, and summer-tide is fully established, is, beyond question, the fitting time for attacking the healthful stores of this country." (*Loc. cit.*, p. 86.) These hints are certainly valuable, and have not, hitherto, been acted upon, to any extent, we imagine.

Accounts of the "Inspection of Public Institutions," and of the "Health of Towns" close this truly valuable contribution in behalf of hygiene and sanitary and social science.

We think it a pity that so many typographical errors deform the pages of this pamphlet. Here are a few of them: Sanitaay for sanitary; punative for punitive, twice on the same page; inebrate, for inebriate; Pyer's glands, for Peyer's; delerium, for delirium; supurerogation, for supererogation; scarletina for scarlatina; erysepelas, for erysipelas, &c. &c. Each a small error in itself, but enough to mar the appearance of the book, taken in the aggregate. W. W. M.

The Diseases of the Prostate; their Pathology and Treatment. By Sir Henry Thompson. Fourth Edition. Philadelphia: Henry C. Lea. 1873.

This is the American re-print of the fourth edition of Sir Henry Thompson's valuable work on the Prostate, of which the third edition appeared in 1868; as might have been expected from the nature of his subject, the author has made very few alterations, and as the work has been long before the profession in substantially its present shape, and is very well known, a review hardly appears to be called for; we shall therefore content ourselves with noticing the few changes and additions, mostly of practical interest, which have been made.

In speaking of the use of injections in the treatment of chronic cystitis accompanying hypertrophy of the prostate, we read that "a solution of quinine has lately been employed for injecting the bladder, in the proportion of one or two grains to the ounce of water. It is worth a trial, and should be used, as all the preceding solutions, at a temperature of from 90° to 100° Fahr." In cases of retention due to enlarged prostate, where all attempts to introduce an instrument through the urethra had failed, it was formerly considered a legitimate operation to perforate the obstructing prostate with a pointed metallic catheter. This forcible proceeding, which in the preceding edition had at least the sanction of mention and description, without comment, is now unhesitatingly condemned. "The improved flexible instruments now employed have rendered any forcible means unnecessary and undesirable, except for very rare cases, in which skilful manipulation has failed. For these, I unhesitatingly advise puncture of the bladder." Among the various modes of performing this operation, puncture with the aspirator and fine trocar is not mentioned; but we know, from Sir Henry Thompson's clinical lectures (third edition, page 104), that this proceeding has his approval for certain cases.

In the chapter devoted to "bar at the neck of the bladder," and to the operations (incision and excision) which have been devised and practised for the removal of such obstructions by Guthrie, Civiale, Mercier and others, our author, in his third edition, appeared disposed to admit that, in some exceptional cases, it might be allowable to resort to such measures. He now says, however:—"I have never performed any such operation myself, nor do I feel justified in recommending its adoption in any circumstances."

A Dictionary of Medical Science. By Robley Dunglison, M.D., LL.D. A new Edition, Enlarged and thoroughly Revised by Richard J. Dunglison, M.D. Philadelphia: Henry C. Lea. 1874.

The work of revision, already begun by the late Dr. Dunglison some time previous to his death, has been most faithfully carried on and completed by his son. The task has evidently been a pleasant one, although far more arduous than many may suppose. Some idea of its magnitude may, however, be obtained from the statement made in the preface that the present edition includes more than six thousand subjects and terms not embraced in the last. Such comprehensiveness as has been attained in the successive enlargements made, while going through several editions, makes this work one of great value. It contains much instruction which could not be obtained by most practitioners in any other way; and, indeed, is invaluable to all as a work of reference. It should be looked upon as an essential part of a physician's library. We are glad to see that particular attention has been

paid to the accentuation of terms. One hears so many flagrant mistakes of this kind, even from the lips of quite learned members of the profession, that we are glad to feel that there is a standard to be consulted or appealed to, within easy reach of every one.

The publisher's work has been done in the best manner; the type is clear, and well suited for reference, and the binding plain and durable, as becomes a work of this kind.

The Science of Homœopathy; or a critical and synthetical Exposition of the Doctrines of the Homœopathic School. By CHARLES J. HEMPEL, M.D. New York; Boericke & Tafel, 1874.

"Now this was remarkably excellent pap."—*Bab Ballads.*

REVIEWING one's own past follies is said to be more profitable, even, than painful; reviewing the present one of our medical brethren (with the bar sinister) is the reverse, and we are tempted to express our views upon this volume by a blank space of liberal extent, with, at most, the addition of the conclusion arrived at by Sir Charles Coldstream, after contemplating the crater of Mt. Vesuvius.

But this privilege is denied us. Upon the 23d page, the author states "it is time that our allopathic brethren should know that a man may be a homœopath without abjuring common sense." This is straight from the shoulder and, like the blow on the nose of the Rev. Thomas Toser, "painful, very painful." With the spirit of long-suffering charity, and of plenteous, unstrained mercy, which characterizes every reviewer for this JOURNAL, we have always hoped that this *was* the thing lacking, and that common honesty might, possibly, still exist to some extent; yet it seems our homœopathic Hercules undauntedly takes the other horn of the dilemma. But, jubilate! the perusal of his book substitutes for our former hope the certainty of conviction of the truth of that hope. The author belongs, evidently, to the old conservative class of the "deluded," rather than to the modern "fraudulent" one. He is anxious to separate from pure homœopathy the non-essentials of "infinitesimal doses, hypothetical potencies and microscopic globules," and to take his stand upon the dogma of similia similibus, pure and simple [we admit the latter adjective, but doubt the former]. Let us see how the tripod of our oracle is constructed. The first leg may be said to be error in diagnosis; the second, non-homœopathic treatment; the third, an even more strange than culpable method of statement as regards results. Thus, page 21st: "case of constitutional tuberculosis of the lungs;" "patient speedily restored to her usual health by means of one-grain doses of quinine." "The treatment lasted about two weeks." Ha! are you there, old tergiversating Truepenny? "*Usual* health!" Is that the meal which hides the cat? Same page: "a case of Purpura Hæmorrhagica where the blood rushed in a torrent from the nostrils and mouth," &c., and "attended with frightful convulsions," receives "dilute phosphoric acid and tincture of hyoscyamus, drops to sleep, sleeps soundly, and *awakes convalescent.*"

Homœopathy thus reduced to primitive simplicity—

"On parent's knee, a naked new-born child,
Weeping, you sat, while all around you smiled!"

is, theoretically, "the extinguishment of a derangement by a stronger affection of a similar kind," [is Free Love homœopathic?] a good deal as Patrick mended the hole in his shirt, by cutting it out. Practically, it consists, under its "common sense," but not common honesty, aspect, of the use of legitimate remedies, since these are really "homœopathic to the diseases for which they are employed," or else "may be properly used by the homœopath" "*in any dose*" as "palliatives." *Principium restat mutato nomine re non.*

"Strange that such difference should be
'Twixt Tweedle dum and Tweedle dee."

The book opens fire with an *ex cathedra* fulmination of *ipse dixits.* Next we are beguiled by specious hypotheses which shirk the *onus probandi.* Then

come the usual advertisement pages of remarkable cures; and, finally,—*Dii pisciculique!* the author settles down to his stride of effulgent transcendentalism raised to the decillionth dilution. Such oriental opulence of orthographic ornamentation! an occasional (h)ic betraying the source of inspiration; e. g., § ii. part 2d, "cosmogonical (sic!) principles." Such wallowing in floods of tropes! Such lavish profusion of grandiloquent hyperbole! Such pyrotechnical coruscations of euphonius verbosity! Such a lambent aureola of ornate euphuism! In short, "such larks, Pip"! that we "needs must think on her," Caskowiski's mare, who

> "Did some things one couldn't but feel
> She wouldn't have done had her tail been real."

To end this strange, eventful history, the book is permeated by a prolixity of pleonasm and a prodigality of persiflage, and is truly "nuts to Scrooge." So, unless the author has exhausted the great "unabridged," plus the diversions of Purley,

> When he next doth write again
> May we be here to read.

"Here'th a P. Eth!" In compliment to the author, we have reviewed his book purely in accordance with the dogma similia similibus, the first exposition of which may be found in Prov. xxvi.-5; but we beg this may be taken as analogy merely, for we have no idea of incurring the "danger of hell-fire," much less the wrath of man, by implying that "letters four do form the name" of any one whom we recognize as a man and a brother—though upon the "wrong side of the blanket." E. W. JR.

A Manual of Toxicology, including the Consideration of the Nature, Properties, Effects and Means of Detection of Poisons, more especially their Medico-legal Relations. By JOHN J. REESE, M.D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, &c. &c. Philadelphia: J. B. Lippincott & Co. 1874.

THE value of this work depends entirely upon the purpose for which it is to be used. The author admits that he has largely drawn upon the standard works for his cases, as, of course, any one without an entirely exceptional experience must do, and it is difficult to find that he has added much thereto, either of facts or of commentary. Although he "feels that he needs no apology for his free quotations," he has not always taken the trouble to insert quotation marks where his sentences are precisely identical with those of Wharton and Stillé.

The book is to be characterized rather by negatives than affirmatives. As may be supposed, we should hardly recommend its purchase to any one who already possesses one of the older works, since he would find but little new. It might, pehaps, be employed as a text-book in a medical college where toxicology is made, as is seldom done, a separate and distinct department, or to the chemist whose library is limited it may also prove useful as containing in a small space a larger number of processes for the detection of poisons than are found in Wharton and Stillé.

Chemistry, Inorganic and Organic: with Experiments. By CHARLES L. BLOXAM, Professor of Chemistry in King's College, London, &c. &c. From the second revised English Edition. Philadelphia: Henry C. Lea. 1873. Pp. 700.

THE first edition of Prof. Bloxam's chemistry was issued while the old nomenclature was in use; a revision has, therefore, been required on account of the almost universal adoption of the new atomic theory.

As the title implies, the work treats of both inorganic and organic compounds, and it is a very complete text-book upon the subject. It is not as elaborate as the large works of many volumes, which can only be used as books for reference, but it treats of all the important subjects as fully as is

desirable in a text book for the use of students. The author evidently considers the experimental portion of chemistry as of the chief importance at the commencement of the study, and appears by no means to accept the new nomenclature in its totality. In fact, the scarcity of reactions and rational or structural formulæ is the only criticism which we have to offer, but these omissions can always be supplied by the competent instructor, and detract but little from the real value of the work as a text-book.

The experiments are numerous, described in detail, and illustrated by excellent cuts, which are of great assistance to the beginner in the chemical laboratory.

The table of contents and the index are both very complete, the former having been drawn up, as the author states in his preface, "to serve the purpose of an abstract," and will prove of great advantage to the student.

We have in this work a complete and most excellent text-book for the use of schools, and can heartily recommend it as such, all the more readily since it has not taken all of the labor from the hands of the instructor. W.

BOOKS AND PAMPHLETS RECEIVED.

On Intra-uterine Fibroids. By J. Marion Sims, M.D. (Re-printed from the New York Medical Journal.) 1874. Pp. 27.

Responsibility in Mental Disease. By Henry Maudsley, M.D. New York: D. Appleton & Co. 1873. Pp. 313. International Scientific Series. (For sale by A. Williams & Co.)

A Practical Treatise on Surgical Diseases of the Genito-urinary Organs, including Syphilis. By W. H. Van Buren, M.D., and E. L. Keys, M.D. New York: D. Appleton & Co. 1874. Pp. 672. (For sale by A. Williams & Co.)

Retention of Urine. By Alexander W. Stein, M.D. (Re-printed from the New York Medical Journal.) 1874. Pp. 30.

Syphilitic Membranoid Occlusion of the Rima Glottis. By Louis Elsberg, M.D. (Re-printed from the American Journal of Syphilography and Dermatology.) 1874. Pp. 16.

Stricture of the Large Intestine.—Dr. K. T. Stabeck reports an interesting case of a woman, aged 40 years, who had suffered from obstinate constipation, increasing constantly in severity until the bowels became totally obstructed, no relief being afforded by either cathartics or injections. For a period of seven months, she vomited fæces daily, and for two months had no passage whatever from the bowels. Death ensued from exhaustion, there being no indications of inflammation of either the intestines or peritoneum. *Post-mortem* examination revealed a complete stricture at the angle of the transverse and descending colon, where a fibroid growth was found, springing, apparently, from the coats of the intestines.—*Medical Times*, May 2, 1874.

Lead Poisoning from eating Preserved Fruits.—Dr. T. Hale Streets, U. S. N., reports a case of lead colic occurring on board the *Portsmouth*, where the source of the poison was found to be in the canned preserved fruits which he had been eating. The public should be cautioned that these cans are made of sheet iron coated with tin, to which a little lead is added to give it greater toughness. If the contents of these cans are not removed after the can has been opened, the malic and citric acid in the fruits, if exposed to atmospheric air, will speedily act upon the lead coated surface of the can, and thus acquire poisonous properties.—*Medical Times*, May 2, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, May 28, 1874.

The Annual meeting of the Massachusetts Medical Society will be held next Tuesday and Wednesday in Boston. Pleasant as these meetings usually are, we hope that the coming one will be more than usually so. The attractions to visitors of the city are greater than ever were offered before. Previous to the meeting at noon, on Tuesday, there will be the usual visit and operations at each of our large hospitals. The two new buildings on the grounds of the Massachusetts General Hospital, which have been but lately opened, will alone well repay a visit. There will be an exhibition of the "tent system" on the grounds of the City Hospital. At about the same time, those who desire will have an opportunity of inspecting, under good guidance, the abattoir at Brighton, which is, perhaps, the greatest triumph of the State Board of Health.* It is, perhaps, to be regretted that it is impossible for one to make all instead of one of these visits, but the arrangement has the advantage of dividing the numbers, which, it is hoped, will nowhere be excessive. The list of papers to be read at the meeting comprises a number of most interesting subjects. Dr. James O. Whitney will read on Dilated Kidney; Dr. Douglas Graham, on Massage; Dr. T. B. Curtis, on Cotton Wool Dressings; Dr. E. P. Hurd, on the Germ Theory of Disease; Dr. S. D. Presbrey, on Chronic Cervical Endometritis; Dr. F. W. Goss, on the Dressings of Wounds; Dr. J. B. Upham, on the late Epidemic of Cerebro-Spinal Meningitis in Massachusetts; Dr. Edward Cowles, on Treatment of the Sick in Tents and Temporary Hospitals; Dr. Henry Clarke, on the Surgical Treatment of Empyema; Dr. J. R. Chadwick on Transfusion. On Wednesday, the Annual Discourse will be delivered at 1 o'clock, by Dr. Nathan Allen, of Lowell, after which the Society will dine in the Music Hall. We understand that some excellent speeches may be expected. During the afternoon of Tuesday, the various museums in the city, and the Children's Hospital, will be open to visitors.

It seems appropriate to publish in this connection the following note and curious extract from an old paper, showing the existence in Boston, one hundred and thirty-three years ago, of a Society governed by the same motives that actuate us to-day. We are indebted for these papers to a member of the profession, well-known for his interest in historical matters.

* The time of the trains will be found in the advertisement on the second page of cover.

The following account of an operation for lithotomy is taken from the *Boston Weekly News Letter* of November 13, 1741. It is of some historical interest, as showing the existence of a Medical Society in Boston at that early date. Very likely it was the first one in point of time in the country. S. A. G.

Boston, May 12, 1874.

A Medical Society in Boston New England, with no quackish View, as is the manner of some; but for the Comfort and Benefit of the unhappy and miserable sufferers by the excruciating Pain, occasioned by a Stone in the Bladder, do Publish the following Case.

IN *Boston, Oct.* 8, 1741, *Joseph Baker*, Æt. 6, was cut for the Stone in the Bladder, according to Mr. *Cheselden's* late Improvement of the *lateral* Way, by Mr. *Gardner* of *Boston* (who had some Part of his Education in the Hospitals and Infirmaries of *London* and *Paris*) in Presence of the *Medical Society* and others without reserve.

This Boy by his complaints seems to have had the Rudiments of this Stone from his Birth, and by degrees the Paroxysms of Pain became so violent, that Death or the Operation were unavoidable. This Stone was extracted in the *lateral* Method without Distraction or Dilaceration of the Parts, which too frequently kill the patient in a few Days or Weeks; or if the Patient escapes with his Life, the Urine continues to issue involuntarily by the Wound, during an uncomfortable Life. Several such miserable Instances we have had in this Province for want of Skill and Discretion in the Operator.

This Stone when extracted, was of a lenticular Form, somewhat elongated, imitating the converging Part of the Bladder, its surface *instar Lapidis arenosi*, but more hard and compact, the circumference 4.75 Inches; its centeral Thickness 8.5* Inches; the longest Diameter 1.5 Inch; the shortest Diameter 1.25 Inch.

The dressings were soft easy and simple, with a Milk Diet to mitigate the scalding of the Water in the Wound. The 4th Day the Urine began to trickle the natural Way; the 11th day it passed the natural way in a full strong Stream; 15th day no more Urine by the Wound; and makes Water only 3 or 4 times in 24 Hours; after the 23d Day, no more Dressing, the Wound being well cicatrized and the Boy at Play about the House.

Thus in about 3 Weeks a compleat and easy Cure for the Stone in the Bladder, was affected by the *lateral* Way.

We believe that the next oldest Society in this country was established in Philadelphia at about the time of the Revolution. 1780 saw the foundation of the Boston Medical Society, which we think subsequently became, or, at all events early in this century, was superseded by, the Boston Medical Association, which still exists. The Massachusetts Medical Society itself was incorporated in 1781.

Our attention has been called to advance sheets of the system of nomenclature which has been adopted by the Marine Hospital Bureau, and which is about passing through the press; it is, in fact, substan-

* This probably should read ·85 inches.—Eds.

tially the same as that drawn up by the Committee appointed by the Royal College of Physicians of London.

"This action has been taken in the belief that the 'Provisional Nomenclature' forms the most promising basis, at least, for a standard and international nosonomy and classification—subject, as it is, to decennial revision, in which there is reason to expect the profession of this country will be represented, and being, in itself, the work of those 'who hold, or have held, the highest place as representative men in the Science of Medicine;' among whom were the chiefs of the medical departments of the public services, thus insuring the official recognition of the system throughout the British Empire."

As is well known, this system of nomenclature has met a hearty approval from the profession in all parts of our own country; it has been accepted by the Medical Department of the U. S. Army; it has been formally recommended by the American Public Health Association, and adopted by the American Medical Association. The approval of the latter is, of course, far from being any criterion of merit, but we, nevertheless, are inclined to think well of the work.

"From the foregoing, it will be seen that its promise to become the common nomenclature and classification for at least all English-speaking peoples is in a fair way to be realized; and, in furtherance of this end, the present edition—aside from the omission of the French, German and Italian equivalents, the transposition of the English and Latin names, the verification of the Index, and the correction of a few clerical and typographical errors—has been made a literal transcript of the English original." It will make a book of 200 pages, and will afford a convenient handbook, not only to the officers of the Marine Hospital Bureau, but to the profession at large.

As a means of convenience to medical men, the supervising surgeon will supply copies to them, to Health Boards, and others, at the cost of the paper, press work and binding, if ordered before the edition is printed. We understand that the cost per volume will not exceed one dollar, and will, perhaps, be considerably less.

SEWER-GAS PNEUMONIA.—A recent event in England shows with what obstinacy certain authorities will persist in a course which they have determined to adopt, in spite of repeated warnings that such action will be fraught with danger to the community.

The *Medical Times and Gazette* of April 4, 1874, reports that, on "March 14th, the parish sewer in the road immediately opposite Mr. Waterfield's school, Temple Grove, East Sheen, was opened by order of the Rural Sanitary Authority, for the purpose of inserting a ventilator, protected by a charcoal basket, in order to allow the escape of sewer-gas. Mr. Waterfield, well knowing the poisonous qualities of sewer-gas, and more than doubting the efficacy of the charcoal-basket protector, immediately made a represen-

tation in the matter to two members of the Sanitary Authority, but they declined to interfere. That his protest might not pass "as the groundless alarm of an unscientific person," Mr. Waterfield supported it by the written opinion of five well-known medical men. One of them, Sir Wm. Jenner, wrote:—"In my opinion, Mr. Waterfield rather underrates the dangers to be apprehended from the proposed ventilator; guarded though it be by a charcoal filter. I have two sons at Temple Grove, and feel very decided that in common with the other inmates of Mr. Waterfield's house, they will, should the ventilator be placed in the high road opposite the house, be exposed to serious risk of disease." He further stated that the risk was by no means confined to infectious diseases, and especially mentioned the danger of pneumonia.

Neither the officer of health, the inspector of nuisances, nor the Sanitary Board took notice of these protests. The latter, which met March 20th, "declined to discuss the 'vexed question' of the efficacy of charcoal, or to change the position of their ventilator; but offered to run a shaft up the house to discharge the gas at a higher level."

All that was obtained was that the open grating should not be inserted, and that the mouth of the ventilator should for the time be covered with gravel.

"On the afternoon of the 20th, there was a very high tide—one of the very dangers mentioned in Mr. Waterfield's protest. The mouth of the sewer was under water, and the compressed gases forced an opening through the gravel covering the ventilator. Four servants sleeping in a room looking towards the road were annoyed on that day by the smell. On the morning of the next day, a boy sleeping in a room which faced the ventilator was taken seriously ill. Mr. Waterfield sent for four of the medical men who had signed his protest, and they found the boy to be suffering from pneumonia. During their visit the gas was escaping freely from the sewer, and it was necessary to close all the upper windows on that side of the house. On the evening of the same day, two other boys were taken ill in the same way as the first boy, and two servants were also affected." That evening the ventilator was allowed to be removed and the sewer properly closed. This being done, "all smell at once ceased."

"We have related this plain, unvarnished tale at some length," says the editor, "for its teachings are many and perfect of their kind. They ought to be studied and taken to heart by householders, sanitary authorities, medical officers of health, nuisance inspectors, and by every one, in short, who is interested—and who is not?—in sanitary matters. A good and right thing to be done—ventilation of a sewer—was determined on, but was done in a wrong place and a wrong manner. The imperfections of the method adopted, the patent wrongness of the place selected, and the evils that would almost certainly be caused, were pointed out promptly, clearly and authoritatively. But the 'sanitary improvement' was persisted in, and the very evils that had been predicted instantly followed. Some critics may be inclined to say that 'the rural Sanitary Authority' was ignorant, with that most dangerous ignorance that comes of a little knowledge, and obstinate with the obstinacy born of a little knowledge, coupled with a little authority; but we are content to say only that 'the Authority' was zealous in sanitary reform. It is, perhaps, very difficult to excuse the indifference shown to such a protest as that sent in by Mr. Waterfield; but 'the Rural Sanitary Authority' had sewer ventilation and charcoal filters on the brain, and the sewer in question had to be ventilated, and to be ventilated in one spot, in one way and at any price.

"Such occurrences as those we have here related are most deplorable. Besides the danger to human life, they inflict a blow, in the names of authority and knowledge, on the young and tender popular faith in Sanitary Science, and place a fatal obstacle in the way of all sanitary improvements."

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, May 13 and 16, 1874.)

OPERATIONS were performed in the following cases :—Tumor of Foot and Supernumerary Toe, Foreign Body in Hand, Hæmorrhoids, Vesical Calculus, Necrosis, Cyst of Neck, Disease of Knee-joint, Stricture of Urethra, Fistula in Ano. During the week, Stricture of Urethra with Retention of Urine, Vesical Calculus, Abscess, Stricture of Urethra, Necrosis of Tibia.

Tumor of Foot and Supernumerary Toe—both congenital, in a baby eight months old; the tumor, large as a marble, was subcutaneous, and situated on the plantar surface of the heel. The toe was attached at the outer side of the foot, and, curling inwards, rested in contact with the sole. Both the tumor and the toe were excised.

Foreign Body in Hand.—While pegging shoes with cable screw wire, a man's hand was caught by the machine, and the wire driven into the flesh of the palm. It could not be felt under the skin, but a careful search, at the point indicated by the patient, led to the detection of the wire, an inch in length, and more than an inch from the point of entrance, deeply situated in the muscles of the ball of the thumb. This appears to be a common accident; the peculiarity of the foreign body and the force with which it is driven in, make it by no means a trivial one.

Hæmorrhoids—in a man. Tied by Dr. Clark.

Vesical Calculus—in a man, thirty-two years old. For one year there had been blood in the urine, and he had suffered from great pain in the bladder and the end of the penis. Lithotrity. Stone of small size.

Necrosis—of first metatarsal bone, in a boy eleven years old. The disease was of eight months' duration, following a "sprain." The fistulous openings were enlarged, and the dead bone extracted by Dr. Clark.

Cyst of Neck—congenital, as large as a hen's egg, and situated in the anterior triangle, on a level with the larynx, in a middle aged man. It was tender, and the skin covering it somewhat inflamed. It was laid open, and found to be suppurating; the inflamed sac was dissected out and the wound closed by sutures.

Disease of Knee-joint—of eight months' duration, in a man forty-eight years old. Swelling and pain were first located below the patella, and have gradually increased, until now the joint is one third larger than that of the opposite leg; the pain is sufficient to prevent him from sleeping, and is always aggravated by standing or walking. There is fluctuation and considerable tenderness over both condyles and above the patella. Two openings, made into the softer and superficial portion of the enlargement, gave exit to a bloody colored substance of the consistency of custard; the greater portion of the swelling consisted of a soft, gelatiniform material, and involved the insertion of the vastus internus and externus. Dr. Clark amputated the thigh, by the flap method, at the junction of the middle and lower thirds.

Stricture of Urethra—the result of gonorrhœa; of six years' duration, in a man thirty-two years old. A number of false passages existed, made before his entrance to the hospital, and a filiform bougie could not be made to enter the stricture, although the urine could be passed in a stream the size of a knitting needle. The urethra was laid open at the point where the bougie stopped; the bougie of a Voillemier divulsor was then guided through the stricture and its rupture effected, after which a number twelve elastic catheter was passed into the bladder and left.

Fistula in Ano—laid open by Dr. Clark.

Stricture of Urethra with Retention of Urine.—Since the first operation (reported in the JOURNAL for May 21st), the bladder has been punctured eight times, over the pubes, and evacuated by the aspirator. The infiltra-

tion has diminished somewhat, and he has been able to pass some urine in drops, but no entrance to the bladder by bougies has been effected.

Vesical Calculus, with Retention of Urine—in a man forty years old, who for the past two years has had atony of the bladder. He entered the hospital with retention; on relieving the latter, a large stone was detected. Lithotrity has been performed four times, and the fragments removed found to be phosphatic.

Abscess.—"Shirt-stud" of plantar surface of foot. Opened.

Stricture of Urethra—of two years' duration and of gonorrhœal origin, in a man forty-seven years old. He had an irritable bladder, pain in the glans penis, and other symptoms simulating stone, but, after a careful exploration of the bladder, none was found. The urethra admitted a bougie corresponding to number thirteen of the French scale. The stricture was dilated with the large tube of Voillemier's divulsor.

Necrosis—of tibia, in a man thirty-two years old, following a compound fracture received on the twentieth of March, and caused by the kick of a horse. The original wound was laid open, one large and some smaller fragments removed; a free incision was then made on the fibular side of the leg, to communicate with the cavity from which the diseased bone had been removed, to afford drainage and provide against burrowing. An abscess was also opened near the ankle-joint. The fragments removed and the condition of the limb indicated that the fracture was spiroidal and V shaped, with a fissure extending the length of the lower portion of the tibia and reaching the articulation. (See case reported in this JOURNAL, vol. vi., new series, page 102.)

H. H. A. BEACH.

Obituary.

DR. E. M. JOHNSON.

ONE of the most valuable lives lost in the terrible calamity at Williamsburg, by the bursting of the reservoir on May 16th, was that of Dr. E. M. Johnson. He was seen rushing from his house, carrying two of his children, with his wife carrying the third, but all were overtaken by the flood and perished. Dr. Johnson was 36 years old. He graduated at the New York College of Physicians and Surgeons in 1862. He served as an Assistant Surgeon in the Second Massachusetts Cavalry, and in February, 1865, became full Surgeon of the regiment, but almost immediately after, he was promoted to be Surgeon-in-Chief of the Regular Reserve Brigade of Cavalry, in which position he served on the staff of General Gibbs to the close of the war. He then settled in Williamsburg, leading a laborious and useful life, attending faithfully to his professional duties, and taking also an active interest in the welfare of the community.

Medical Miscellany.

NEW HAMPSHIRE MEDICAL SOCIETY.—The annual meeting will take place at Concord, June 9th and 10th. Dr. John L. Swett, of Newport, is President, and Dr. A. H. Crosby, of Concord, Anniversary Chairman.

TRICHINÆ have been causing much alarm, sickness and death in Austin, San Antonio, Indianola, Dallas and some other places in Texas during the winter.—*Southern Medical Record.*

PAINLESS METHOD OF CAUTERIZING WITH NITRIC ACID.—It is found that chancroids can be cauterized with nitric acid without causing severe pain, by first applying to the sore pure carbolic acid. The carbolic acid serves as a local anæsthetic, and prevents the nitric acid from causing pain, which is not easily borne by the patient.—*New York Medical Journal.*

Post-Partum Hæmorrhage.—Dr. J. G. Miller reports two cases in which severe post-partum hæmorrhage was controlled by compression of the abdominal aorta, after the ordinary means for producing this effect had proved futile.—*Western Lancet.*

Child Murder.—A negro nurse at Calvert, Texas, thrust a common dressing pin, of large size, through the anterior fontanelle of a white child, which caused inflammation of the brain, convulsions and death. After death, the mother in her agony fondled the child, and running her fingers caressingly through its hair, felt the head of the pin and extracted it, which at once explained matters. The murderess was executed.—*Southern Medical Record.*

Prevention of Post-partum Hæmorrhage.—Dr. B. Athill considers it important, in order to prevent the supervention of *post-partum* hæmorrhage, to forcibly remove the placenta immediately after the birth of the child. The plan adopted by him is to grasp the uterus with the left hand, and make firm pressure downwards in the axis of the pelvis. He then hooks the right index finger on to the edge of the placenta, which by this time is invariably in the vagina, and, with a gentle, rotary movement, extracts it.—*British Medical Journal.*

Middlesex East District Medical Society.—At a meeting held in Woburn, May 13, 1874, the following list of officers were chosen:—

President.—Dr. Samuel W. Abbott.
Vice President.—Dr. Frederic W. Winsor.
Secretary.—Dr. Azel Ames.
Treasurer and Librarian.—Dr. A. Chapin.
Councillors.—Drs. S. W. Abbott, J. M. Harlow, F. F. Brown.
Censors.—Drs. A. Ames, A. H. Cowdrey, E. Cutter.
Commissioner on Trials.—Dr. A. Chapin.

Medical Graduates in 1874.—University of Pennsylvania, 121; Jefferson Medical College (Philadelphia), 151; College of Physicians and Surgeons, New York, 84; Bellevue Hospital Medical College, 181; College of Physicians and Surgeons, Baltimore, 26; Medical College of Ohio, 87; Medical Department of the University of Louisville, 123; Cincinnati College of Medicine and Surgery, 22; Chicago Medical College, 44; College of Physicians and Surgeons of Syracuse, N. Y., 9; Medical College of the Pacific, 12; Medical Department of the University of California, 8.—*Medical News and Library.*

Died,—At Hingham, 20th inst., of pneumonia, Dr. Ezra Stephenson, 68 years 7 months 7 days.

Mortality in Massachusetts.—*Deaths in seventeen Cities and Towns for the week ending May* 16, 1874.

Boston, 159; Worcester, 11; Lowell, 19; Chelsea, 7; Cambridge, 19; Salem, 7; Lawrence, 19; Springfield, 6; Lynn, 13; Gloucester, 5; Fitchburg, 1; Newburyport, 5; Somerville, 6; Fall River, 20; Haverhill, 4; Holyoke, 7; Pittsfield, 8. Total, 316.

Prevalent Diseases.—Consumption, 65; pneumonia, 24; scarlet fever, 21.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, May 23d, 146. Males, 79; females, 67. Accident, 8; apoplexy, 3; bronchitis, 1; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 7; cancer, 1; cerebro-spinal meningitis, 2; consumption, 36; convulsions, 4; debility, 3; dropsy, 2; drowned, 1; epilepsy, 1; erysipelas, 4; scarlet fever, 9; typhoid fever, 3; disease of the heart, 5; hæmatemesis, 1; intemperance, 1; disease of the kidneys, 3; disease of the liver, 2; congestion of the lungs, 2; inflammation of the lungs, 14; marasmus, 3; old age, 9; paralysis, 3; premature birth, 1; peritonitis, 2; puerperal disease, 1; rheumatism, 3; tetanus, 1; teething, 2; tumor, 1; uræmia, 1; ulcer of stomach, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 43; between 5 and 20 years, 14; between 20 and 40 years, 40; between 40 and 60 years, 26; over 60 years, 23. Born in the United States, 95; Ireland, 31; other places, 20.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

ON THE SURGICAL TREATMENT OF NASO-PHARYNGEAL POLYPI.

By DAVID W. CHEEVER, M.D.

Surgeon to the Boston City Hospital.

IT has long been known that a class of fibrous growths, sometimes recurrent and sarcomatous, had for their *habitat* the top of the pharynx and the posterior nares. These are quite different from the ordinary mucous polypi of the nasal passages, and are much more formidable.

Two varieties exist. The one, and more common, grows from the body of the occipito-sphenoid bone, or roof of the pharynx; starting from the periosteum, filling the pharynx, obstructing the posterior nares, hanging down below the soft palate, and interfering with deglutition, and, in extreme cases, with respiration. The other, less frequent, originates in the spheno-maxillary fossa, and thence pushes out into the zygomatic fossa, forwards towards the nose, and upwards into the spheno-maxillary fissure. Neither of these forms infiltrates neighboring tissues like cancer, and rarely contracts adhesions. They advance by pressure and absorption, and destroy neighboring parts by their growth. They recur, unless the attachment of their root to the periosteum is wholly destroyed, but not otherwise.

Either of these forms may, however, on recurrence after insufficient removal, become softer, less fibrous, more cellular and more malignant.

In the worst cases, the naso-pharyngeal polypus may push out its processes into every adjacent cavity, as the nares, the antrum, the ethmoidal and sphenoidal cells, or the sphenoidal fissure, inside the cranium.

The various operations resorted to for the removal of these foreign growths have been recently reviewed by Dr. H. B. Sands, of New York, whose paper on this subject will form the basis of this communication.* While excellent as a *résumé*, and interesting for the case there described, the article by Dr. Sands has one important omission, and is also, as it seems to us, open to criticism in the surgical deductions which he draws as to the advantages of his method of operating. After mentioning the varieties, symptoms and clinical history of naso-pharyngeal polypi, and showing how important it is to diagnosticate the exact site of the pedicle or root of the tumor, Dr. Sands remarks

* On Naso-pharyngeal Polypi. By H. B. Sands, M.D., Professor of Anatomy in the College of Physicians and Surgeons, Surgeon to the Bellevue and Roosevelt Hospitals. Re-printed from Dr. Brown-Séquard's Archives of Scientific and Practical Medicine. New York. 1874.

that, on the dead subject, the pharynx can be explored through the mouth, and that the finger will reach quite to the summit of the pharynx. He claims, also, that, on the living subject, the pedicle of the tumor can be distinctly traced up to its attachment to the occipito-sphenoid bone, with the finger in the fauces pushed up behind the soft palate.

Most persons find it impossible to reach higher than the orifice of the posterior nares, when the pharynx is empty; the difficulties of exploration are much increased by the presence of a tumor; and the surgeon must have a very long forefinger—the patient, too, being exceptionally tolerant of manipulation—to enable him to touch the occipito-sphenoid bone.

The treatment pursued by surgeons is one of the following operations:—

1. Avulsion.
2. Ligature.
3. Galvano-cautery.
4. Caustics.
5. Electrolysis.
6. Excision.

(1.) "Cases suitable for avulsion are rare; and, in most instances, the attempt to extract the polypus by the forceps fails." Neither is this mode of operation free from danger. Dupuytren once tried to extract a polypus through the mouth with the forceps. He only partially removed it, and there was a copious hæmorrhage. The following morning, the patient was found dead in his bed.

Mr. Cooper Forster recently attempted the same operation. Profuse bleeding occurred at the time; subsequently, headache, aphasia and convulsions. The patient died on the twelfth day. On *post-mortem* examination, the cribriform plate of the ethmoid was found broken, probably by the avulsion of the polypus. This operation, then, so successful with the simple nasal polypus, should be restricted to that form.

Guérin, we are told, used a still more rude, and probably dangerous plan, namely, to pass the left forefinger up to the pedicle of the tumor, by the mouth, and then with the right hand, manipulating by the nose, the tumor was torn from its attachment by a raspatory.

(2.) The ligature has been successfully used, and was the classical mode with the old writers; but this is not sure nor free from danger. The pedicle of the tumor, if small, is surrounded by a loop of silk, or hemp, and both ends brought out of the nostril. A double silver canula (Gooch's canula, much used by the old surgeons for polypus of the uterus) is then made to glide over the threads, through the nose, and, when in contact with the pedicle, the ligature ends are drawn tight and secured. Ulceration of the pedicle takes place, and the tumor sloughs off and is withdrawn through the mouth. Although a portion of the pedicle is left behind, yet, as in uterine polypus, it may shrink away, and not grow again. It is, however, apt to return, and the use of the ligature occasionally causes death—one case (Gunther's) of death by suffocation, from the falling of the tumor into the larynx. Other cases have terminated by œdema of the glottis, and others by pyæmia. Winter, Dr. Sands tells us, operated by ligature, but on the fifth day the putrid odor of the tumor was insufferable. On

the seventh day, respiration and deglutition were so greatly embarrassed that the surgeon was obliged to seize the growth and tear it away.

(3.) The galvano-caustic ligature is very useful sometimes, especially in completing the work begun by the knife. "It has the great advantage over the ordinary ligature of causing the separation of the growth, at the time of the operation." So, too, have the écraseur and the chain-saw, both of which have been successfully employed. These latter methods, used alone, leave the growth behind; and they cannot be used at all, except where the pedicle is small, or well defined and accessible.

(4.) The use of caustics is condemned by Dr. Sands. The deep situation of the tumor, and the danger of caustic action extending on to the pharynx, and even into the larynx, is reason enough for their disuse; besides which they are not radical.

(5.) Electrolysis, like the galvano-caustic ligature, or other caustics, is useful as an auxiliary to more direct surgical means, rather than by itself. "Electrolysis is tedious, laborious and uncertain." In one case, reported as successful, no less than one hundred and thirty sittings were required to destroy the growth. A large fibrous polypus cannot be destroyed by this agent. The galvano-cautery is much speedier and surer. "I am satisfied," says Dr. Sands, "that neither in the removal of large naso-pharyngeal polypi, nor of any large tumor, except, perhaps, one composed of erectile tissue, can electrolysis be accepted as a substitute for the knife."

(6.) Excision. The tumor may be reached through the mouth, or by the resection of some of the bones of the face. The excised bones may be taken away altogether, or they may be replaced, after the extirpation of the tumor. We designate the first as an excision of the upper jaw, or portions of it; the second, as a *displacement* of the upper jaw, or an osteo-plastic operation.

Operations through the mouth are as old as Hippocrates, but were chiefly revived and advocated by Nélaton. The polypus is exposed by slitting open the soft palate and uvula in the median line, and, after removing the foreign growth, by closing the wound in the palate by sutures. In some cases of large polypus, additional room to manipulate has been gained by excising a portion of the hard palate. When we consider the distance of the occipito-sphenoid bone from the orifice of the mouth, the darkness, and obscurity by hæmorrhage, and also the fact that cutting away the hard palate unveils the nares, rather than the pharynx, we shall conclude that this is not the most direct and simple way to reach a naso-pharyngeal polypus.

Total excision of the upper jaw was practised successfully in 1840, by Flaubert, and, it is claimed, by Syme, in 1832. "It has been repeatedly done, and is praised by Michaux, Robert and others." It is undoubtedly the most direct and perfect way to explore the naso-pharyngeal cavity, and hence to extirpate foreign growths. But it entails a great mutilation; the orbit, nose and mouth are practically thrown into one cavity, and it is adapted only to tumors of the antrum, or spheno-maxillary fossa, which are malignant and infiltrate neighboring tissues, as cancer does.

Partial excision of the upper jaw, for the removal of a naso-pharyngeal polypus, was first practised by Maisonneuve in 1860. The upper lip is slit up into the nostril, and the flap of the cheek retracted.

The upper jaw-bone is then denuded of flesh; the mucous membrane of the hard palate is divided in the median line, and the soft palate cut away from the hard palate, for one half of its extent. An incisor is drawn, strong bone forceps are introduced into the nose and mouth, and the alveolar process and hard palate divided. One blade of the forceps being still in the nose, the other is applied horizontally to the external surface of the upper jaw, beneath the malar tuberosity, and the walls of the antrum are divided. This separated, half of the upper jaw is then torn away. It contains the alveolar process and teeth of one side, the palate process, the lower two-thirds of the antrum, and part of the pterygoid process. The polypus is then removed, and the soft parts sewed up.

"Five osteo-plastic methods deserve description, namely: two devised by Langenbeck, one by Huguier, one by Roux, and one by Dr. Cheever, of Boston."

Langenbeck's simpler and milder operation consisted in cutting open and turning upwards on to the forehead the nasal bone and nasal process of the superior maxillary bone, so as to expose the nasal cavities of one side. After removing the polypus, the bones are restored to place, and unite again. We find, on research, other modes as follows: Chassaignac proposed an operation to cut up the entire nose from the left cheek, and turn it over, bones and septum included, on to the right cheek. He admits, however, that deformity follows this operation. Boeckel carried out the same method, but preserved and restored the nasal bones. Verneuil has published a method of opening the nose from the side, by lifting the alar cartilage and nasal bone, toward the septum. Lawrence (1862) operated by cutting the septum and both alæ from below, and drawing the nose upwards and backwards, so as to expose the middle and lower meatus.

Dr. Sands has overlooked, or omitted, in this connection, the osteoplastic operation of M. Ollier, of Lyons. This is by far the best operation done by displacement of the nose.

M. Ollier* calls this "a new operation for the removal of naso-pharyngeal polypi," and first published it in 1864.

He describes it as "*osteotomie verticale et bilatérale des os du nez.*" It is very simple, and consists of four steps, as follows:—*(a.)* A horse-shoe incision, down to the bone, starts from the level of the right ala of the nose, ascends obliquely to the highest point of the naso-frontal junction, just below the eyebrows, in the middle line, and descends obliquely to the left ala. A narrow saw, placed flat against the orbital ridges, now divides the bones, down through this incision, to the alar cartilages. The septum and alæ are snipped, to a slight degree, with scissors, and the nose is turned upside down, and hangs by the alæ and septum near the lip.

(b.) The nasal passages are now opened, but it is found that the septum is in the way; this is broken and forced aside by pushing in the finger, without rupturing the mucous membrane. In this way, ample room is given to see and reach back into the naso-pharyngeal region.

(c.) The occipito-sphenoid bone and the attachment of the foreign growth are now easily reached by the finger; it is torn away with strong forceps, or severed with curved scissors, and, lastly, all the

* Traité Experimentale et Clinique de la Régénération des Os, et de la Production artificielle du Tissu osseux. Par L. Ollier, Chirurgien en chef de l'Hôtel-Dieu de Lyon. Paris. Victor Masson et Fils. 1867. Tome second, pp. 482, et seq.

pedicle and periosteum to which it is attached are rasped away from the bone, and the chance of recurrence prevented.

(d.) The nose is restored to place. It fits perfectly at the sawed portions, and hence it unites without deformity. The vascular supply from the branches of the facial artery (the superior coronary, lateral nasi and angular arteries) running from below upwards, ensures ample nutrition to the flaps.

The nose, says M. Ollier, does not lose its warmth, and becomes only slightly livid. In no case was there a failure to unite. In one case the patient imprudently blew his nose with his handkerchief the fourth day after operation, but no harm resulted. The skin unites by first intention. The bones stiffen in two weeks. Ossification of the callus (provisional) occurs in about six weeks. One of the chief difficulties of the operation, he continues, is to detach the polypus, so solidly is the fibrous tissue implanted in the periosteum. The anterior opening through the nasal orifice gives the best and safest direction in which to make traction for its removal. "We have no confidence, as regards recurrence, save in removal followed by the rasp, until we can feel the osseous tissue of the basilar process quite denuded." As regards the room for manipulation by Ollier's operation, he has removed, in this way, a naso-pharyngeal polypus, weighing 205 grammes—"perhaps the largest fibroma which has been taken away from this region."*

Having performed Ollier's operation upon the living subject, we can bear personal testimony to the ease, safety and excellence of this operation. And unless in growths so exceptionally extensive as to invade the spheno-maxillary fossa or antrum, when Langenbeck's second method would be indicated, we should prefer it to any form of displacement of the jaw.†

There are, however, other and milder ways of reaching the antrum, without subsequent deformity.

Ollier proposes to accomplish this by deepening his section of the nose, and carrying the section obliquely backwards, and thence forwards, to the soft parts.

Roser, of Marburg, in his Surgical Anatomy,‡ gives a section to display the antrum and nasal fossæ, which we have practised in demonstrations on the dead body, and which seems well adapted to uncover growths lying in the antrum, nasal passages, &c. Starting from the centre of the nasal depression below the eyebrows, like Ollier's, this section goes obliquely backwards through the upper jaw, antrum, alveolus and palate, to a point between the second molar and the wisdom tooth. The cheeks are incised, and the whole hard palate and floor of the antrum can thus be inverted, and depressed below the teeth of the lower jaw. It gives an admirable *exposé* of the region, and we see no reason why it should not succeed as an osteo-plastic operation.

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* 1 gramme = 15·43 grains. 205 grammes = 6 oz. 4 dr. 43 grs. Troy. Op. cit., p. 486, &c.

† The following extract from a letter received from M. Ollier, strengthens my belief in the merits of his operation:—

"Lyon, 20 Mars, 1873.

"J'ai lu avec la plus grand satisfaction votre belle operation d' écartement de la joue pour l'ablation d'un fibrome naso-pharyngien. C'est un success d'autant plus interessant que les cas semblables (Huguier, Langenbeck) avaient donné lieu à des accidents tardifs (suppuration, chute des dents, etc.). *Pour moi, je m'en tiens toujours a l'abaissement du nez; j'ai pratique plus de 20 fois cette operation,*" etc.

‡ Manual of Surgical Anatomy. By W. Roser, Professor of Surgery in the University of Marburg. Translated by John C. Galton, M.A., &c. London: Henry Renshaw. 1873.

Langenbeck's second operation is to reach the spheno-maxillary fossa. To understand the possibility of making the first bony section of this operation, we must remember that the presence of a tumor expands by absorption the fossa, and the spheno-palatine foramen. A curved incision was made from the ala nasi to the middle of the zygomatic arch; a second, from the nasal process of the os frontis, along the lower border of the orbit, to meet the first. The finger was pushed back into the spheno-maxillary fossa and a narrow saw passed on the finger through the dilated spheno-palatine foramen, and the jaw sawed across, horizontally, from behind forwards. The second saw-cut was made from below upwards through the zygoma and frontal process of the malar bone, into the spheno-maxillary fissure, and thence through the orbital plate of the superior maxillary bone, as far as the lachrymal bone. The resected portion of the upper jaw was then connected only with the nasal bone and nasal process of the frontal bone. The resected piece was then pried up and turned back over the nose. The spheno-maxillary fossa was thus fully uncovered, and also the posterior nasal fossa. The polypus was removed, and the bone replaced. Bony union took place in eighteen days.

Huguier's osteo-plastic operation for polypus was as follows: An incision was made from the angle of the mouth to the masseter; a second, around the ala nasi and down the median furrow through the upper lip. This triangular flap was turned up and exposed the upper jaw. A transverse incision separated the hard from the soft palate. The jaw was sawed horizontally from the posterior tuberosity through the antrum, to the floor of the nares. An incisor was drawn, and the hard palate was grooved with the saw, in the median line. The base of the pterygoid process was severed by strong bone forceps. By prying with a chisel, the jaw was luxated downwards, and towards the median line. Through this opening, the pharynx was exposed, and a large polypus removed from the basilar process. The jaw was then replaced. It was with difficulty kept in position, and after eight months there was no bony union. Necrosis and shedding of a sequestrum followed.

"An operation essentially the same as Huguier's," says Dr. Sands, "was performed in 1867, by Dr. Cheever. In this case, only one external incision was made, by the side of the nose to the angle of the mouth, and the pterygoid process was not divided." We would call attention to other points of difference. The soft palate and the hard palate were untouched by knife or saw. The only bony section by the saw was through the antrum, horizontally, from the posterior tuberosity of the upper jaw, into the nares. The alveolus only was cut with bone forceps. The pterygoid attachment and the hard palate were broken, the latter at the symphysis, by forcing the sawed lower half of the upper jaw downwards and inwards. Thus the entire mucous membrane of the mouth was left untouched. The tumor was cut away, and the base rubbed with fuming nitric acid; and it recurred. In eleven months, the second operation was done through the same incisions as the first. Bony union had taken place. This time, the tumor was removed, and the root and periosteum scraped away from the basilar process. It never recurred again, and nearly six years have now elapsed. Bony union took place after the second operation. There was never necrosis, or falling of teeth. Six weeks after the

first operation, he was able to chew. Twenty-seven days after the second operation, he was discharged from the hospital, with the jaw firmly in place. We have always ascribed these very perfect reünions to the fact that extensive vascular connections were preserved unbroken in the mucous membrane of the mouth and pharynx.

Roux's osteo-plastic operation is practically a resection of the superior maxillary and malar bones, without taking away the fragment. All the sections of bony attachments are made, as in an excision. The four classical sections are made through the frontal process of the malar bone, the zygoma, the nasal process of the superior maxillary and the alveolus and hard palate. In addition to this, the pterygoid attachments are cut away with a chisel. The upper jaw and malar bone, thus wholly detached, are forced upward and outward, until the interval between the two superior maxillary bones is wide enough to get access to the polypus. Should more room be needed, the other superior maxilla is to be displaced also. After the operation, the upper jaw bones are to be restored to place. Whether or not they will survive this wholesale sawing and cutting is unknown, since, we believe, the operation has never been done on the living subject.

The following extract from Dr. Sands's monograph describes the fifth and last osteo-plastic operation for polypus :—

"Lastly, Dr. Cheever, of Boston,* performed an osteo-plastic resection of both superior maxillæ, for the removal of a naso-pharyngeal tumor of unusual size. The operation is thus described:—'The primary incision through the soft parts was on either side of the nose, along the natural wrinkle from near the inner canthus, around the alæ, and through the commissure of the myrtiform fossa of the lips. The flaps were reflected, so as to expose the bone beneath as far upward as the malar prominences. With a narrow saw the body of the bone was divided from the tuberosity, forwárd, beneath the zygoma, on each side into the middle meatus. The septum nasi and the vomer were divided with strong scissors. Nothing but the posterior attachments of the upper maxillæ now prevented their depression; and, hinging on the pterygoid processes, the upper jaw was brought down so as to expose the tumor. Its attachments were found to be to the body of the sphenoid bone, and to the ethmoid. These attachments, except the first, were divided by the finger, and a section of the growth was made by means of scissors as near the sphenoid bone as possible, the mass being too large to deliver altogether. With a gouge chisel, the remaining portion was scraped away and removed. The whole growth was in size and shape like a large lemon. The depressed jaw was returned to its position, and retained firmly by silver wire passed on each side through the malar bones. The soft parts were opposed by silk sutures, and the whole physiognomy perfectly reinstated.'

"Dr. Cheever's operation is ingenious, and is not, I should judge, very difficult of execution. Although it terminated fatally in the single instance in which it has been performed, I agree with Dr. Cheever in thinking that there is no danger inherent in the operation that ought to prevent its repetition."

We may be allowed to add that the vascular supply for the repair of the bony sections in this operation is excellent, since we have the whole palatine arch and both alveoli uninjured. The patient was in an exhausted and anæmic condition before the operation, and would have been likely to succumb from either of the other operations.

In reviewing these osteo-plastic operations, Dr. Sands is disposed to be dissatisfied with them all. Langenbeck's first mode he acknowledges is well adapted to nasal polypi. We agree with him in think-

* Medical and Surgical Reports of the Boston City Hospital, 1870, p. 164.

ing that Langenbeck's major operation should be restricted to tumors growing in the spheno-maxillary fossa. Roux's operation, also, he is right in saying involves too great mutilation of the facial bones, without corresponding benefits, either in opening up a way to the polypus or in the chance of restoration of the parts.

Of the other modes, he says:—

"Huguier's operation has been performed by its inventor, and, with slight modifications, by Dr. Cheever, of Boston. Both patients recovered; but one circumstance in each case deserves to be mentioned. In Huguier's case, necrosis occurred, and a portion of the resected bone exfoliated, the remainder failing to unite by osseous union. In the patient treated by Dr. Cheever, the tumor recurred a year after its removal, and resection had to be performed a second time in order to expose it. These facts constitute objections to the operation, and the liability to recurrence of the disease after removal offers a strong argument against osteo-plastic operations generally."

An ingenious, but fallacious objection. We shall see, farther on, how his case, treated by excision, fared in these respects. After disposing of the osteo-plastic operations, he goes on to say:—

"Finally, let us endeavor to determine the value of ordinary excision of the upper jaw, either partial or total, as a preliminary operation. It may be remarked, in passing, that excisions of the upper jaw are, as a class, remarkably successful operations. The objections that apply to them are mainly owing to the disfigurement which they produce. We shall have occasion presently to see that this objection is almost groundless, so far as the operation of partial excision is concerned. In the next place, it may be stated that excision of the jaw affords easier access to the pharynx than any of the other methods, and thus enables the operator to attack the pedicle with the maximum chances of success. Accordingly, the probability of a recurrence will be correspondingly diminished. Neither the operations through the mouth, nor any of the osteo-plastic procedures which have been described, permit that satisfactory exposure of the base of the skull which is afforded either by partial or total resection of the superior maxilla; and it must be evident, from what I have already said, that ample space is necessary, both for the thorough extirpation of the tumor, and for the prompt arrest of the hæmorrhage that so often accompanies its removal.

"After an osteo-plastic operation, recurrence is not so easily detected; and when it does take place, the entire operation must be repeated. It remains to be ascertained, whether partial excision of the jaw, after the method of Maisoneuve, will not fulfil all the indications presented."

We now quote the description of his operation, performed by partial excision:—

Case.—J. D., aged 20. October, 1872. Symptoms for a year past: pressure, obstruction and hæmorrhage. A large tumor was discovered distending the pharynx, and visible below the free edge of the soft palate. First operation, October 17th, through the mouth; one half the soft palate was cut and turned back. The hard palate was partly absorbed. The écraseur was slipped around the root of the tumor, which was attached to the base of the skull. The chain broke. The pedicle was then divided by scissors. Copious hæmorrhage followed. This finally ceased, in consequence of the prostration of the patient, who had several attacks of syncope. The patient rallied, but the tumor soon began to grow again. The recurrent growth presented "a fungous-looking mass in the mouth, extending forward and laterally nearly as far as the dental arch. It had grown firmly adherent to the posterior border of the septum narium." "I now decided to operate again, by making a partial excision of the jaw, and to remove the principal mass of the tumor with the galvano-caustic ligature.

"On May 10th, the patient was etherized, and I operated as follows: With

a scalpel, the tissues of the face were divided down to the bone, along a line extending from just below the right inner canthus downward beside the nose and around its right ala into the opening of the nostril; thence along the junction of the skin and mucous membrane to the middle line, and along the latter to the free margin of the upper lip, the latter being completely divided.

"The flap thus marked out was reflected upward and outward sufficiently to admit of the next step of the operation, as follows:—

"With a straight, narrow, button-pointed saw, known as Langenbeck's, the malar process of the upper jaw-bone was divided upward and inward (the right central incisor having first been drawn), and into the upper end of the saw-cut a trephine centre-pin was entered, and a circular hole made into the antrum, to admit one blade of a large cutting bone-forceps, the other blade being passed into the inferior meatus of the nose.

"With this instrument, thus entered, the section of the front and inner walls of the antrum was completed. With the same instrument, the hard palate was divided on the right side, close to the septum. The soft palate was then separated with scissors curved on the flat, from the hard palate, and the detachment of the lower part of the upper jaw completed by grasping it with Fergusson's lion-toothed forceps, and wrenching it away, the lower part of the pterygoid process coming with it. The inferior turbinated bone, which projected into the cavity thus left, was pulled away, and ready access to the tumor was then obtained.

"The tumor was found, like its predecessor, to be attached to the basilar process of the occipital, and the body of the sphenoid bone, and was adherent to the posterior free margin of the septum and hard palate, and to the right pterygoid process.

"The palatal and pterygoid processes, and the vomer, were all thinned, and in parts absorbed.

"The connection of the tumor with the septum, hard palate and pterygoid plate were first divided, partly with the scissors and partly with the finger, a very large part of the septum, and nearly all the remains of the hard palate, being removed by the process.

"The pedicle, which was very broad, was then surrounded, near the base of the skull, with a loop of platinum wire, and the latter connected with from two to three cells of a Grove's battery, the larynx and pharynx being protected by wet sponges from the leakage of heated fluids. The tumor was divided by the galvano-caustic wire in six minutes, without the least hæmorrhage.

"Examination now showed a considerable portion of the pedicle still remaining, and to this the galvano-caustic loop was again applied. Other smaller portions were removed with the fingers, aided by a large rugine, and the last piece left, in part, with scissors. The use of the latter was followed by a certain amount of bleeding, soon checked by the application to the stump of the galvano-cautery, and the persulphate of iron, aided by pressure, and by the ligation of an artery in the pterygoid fossa.

"After all had been removed of the tumor that could be, a small prolongation of it was discovered running into the sphenoidal cells; and this I deemed it imprudent to attack.

"The flap of soft tissues was now replaced in position, and secured by one twisted and a number of interrupted sutures of silver and fine silk.

"Very little blood was lost during the operation, which lasted at least two hours, nor did what was lost penetrate the glottis to any dangerous degree. . . . . .

"Microscopic examination showed the tumor to be essentially fibrous, the bundles of fibrous tissue being mingled with a certain amount of young cells, which were especially numerous beneath that point on the free surface of the growth from which the first tumor had been removed.

"The patient recovered rapidly after the operation, and was allowed to sit up on the ninth day, union by adhesion having taken place through the entire extent of the external wound."

There can be little doubt, in our opinion, that this was a case more suited to the operation of total extirpation of the jaw, than to any partial excision, or osteo-plastic operation. The growth was rapid; "fungous;" the seat of previous hæmorrhages; it penetrated even to the sphenoidal cells, and it contracted adhesions. Had the whole jaw been taken away, perhaps even readier access would have been got to the upper limits of the tumor. At any rate we submit that the history of this case affords no argument against the utility of osteo-plastic operations in cases of ordinary fibrous polypus, since they are not strictly comparable with it. Neither can it be asserted that a displacement of the jaw, as in our case, would give rise to a greater chance of recurrence than this excision after Maisonneuve, where a portion of the growth was left behind. The whole point of recurrence turns upon the place from which the tumor grows. Experience proves that a growth confined to the body of the occipito-sphenoid bone will not grow again if the periosteum, in which it is implanted, is rasped away from the bone. The history of twenty operations by displacement (Ollier's operation), proves that this region can be effectually reached, and cleared of even the largest polypi, without excising or taking away any portion of the bony structures of the face. Our own case of two operations on the same patient proves that a recurrence can be detected, operated on and cured, by a repetition of the operation for displacement of the upper jaw, and that complete repair will take place, after new osseous growth is cut through and replaced for the second time. It seems to have been overlooked that we possess, in the laryngeal mirror and the rhinoscope, a ready means of viewing the condition of the pharynx, and the commencement of any recurrent growth. This was used by an expert on our patient, before the second operation.

After a thorough review of all the measures which have been adopted to remove naso-pharyngeal polypi, we feel justified in drawing the following conclusions:—

1. The excision, partial or complete, of the upper jaw is applicable only to the removal of tumors which grow from, or are attached to, some portion of that bone.

2. Tumors having their origin either in the spheno-maxillary fossa, the posterior nares, or the body of the occipito-sphenoid bone, can be attacked and completely removed by one of the operations for displacing the upper jaw, or the nose.

3. In this second class of cases, to remove any portion of the bony structures of the face, when they are unaffected by disease and could be displaced and restored, is to cause a needless mutilation, and is contrary to sound principles of conservative surgery.

4. For tumors in the spheno-maxillary fossa, Langenbeck's major operation is applicable.

5. For the growths in the posterior nares and top of the pharynx, Ollier's operation by displacing the nose; or Huguier's operation, modified by us in keeping the vascular connection of the palate and pterygoid processes unbroken, will either of them prove sufficient to eradicate the disease.

6. In very large tumors, there is no reason, *à priori*, why our operation of displacing the *whole* upper jaw should not succeed.

Progress in Medicine.

REPORT ON DERMATOLOGY.

By J. C. White, M.D.

Vaccination.—At the third International Medical Congress, which was held in Vienna in September of last year, the committee, previously appointed to examine the question of vaccination in all its bearings, presented its report through Dr. Kaposi (*Archiv für Dermatologie und Syphiligraphie, v. Jahrgang,* 3 *u.* 4 Heft). The conclusions of the committee were expressed in question and answer form, and they may be briefly presented here in the same manner.

Shall vaccination be generally performed?

The answer is unreservedly in the affirmative. All observation, based upon its action upon individuals and masses, during severe epidemics and at other times, on its relations to the frequency, intensity and mortality of smallpox, has demonstrated that it is a positive and great, if not an absolute, protection against this disease; and that variola is as deadly an affection to those not vaccinated as it was before the introduction of vaccination. The practice should also be made obligatory, as whatever may be said in relation to the principle of personal freedom, the State cannot permit one person to be a source of danger to another.

Shall humanized or original cow-pox lymph be used in vaccinating?

Experience has taught that the original lymph takes less surely, and sometimes produces intense local effects, which may be the source of dangerous or even fatal processes, while the humanized is more sure, is easily obtained, and but seldom produces undesirable or threatening local or general effects. In general, therefore, the latter is to be recommended. Inasmuch, however, as a part of the public entertains a fear of humanized lymph, as the possible bearer of disease from person to person, and inasmuch as a frequent regeneration of lymph can do no harm, lymph from either source may be used according to individual desire.

How should the lymph be taken?

From a well-developed vaccine pustule when its contents are perfectly clear and transparent, that is between the eighth and tenth day, and only so much should be collected as flows spontaneously and without pressure in clear drops after pricking.

How shall it be preserved?

Three methods are recommended: 1. In capillary tubes; 2. Drying it upon lancet points; 3. Suspending it in glycerine.

At what season and at what age shall vaccination be performed?

The same good results and the same impunity are to be obtained at all times of the year and conditions of the weather; and the earlier in infancy it is performed the better. A healthy child four or five days old will bear the process without any perceptible sympathetic disturbance of the economy.

How long does the protection afforded by vaccination last?

This is a queston not easily answered. It seems quite certain that with many persons this power diminishes in course of the second de-

cennium. It is also certain that many vaccinated persons remain until their latest age protected against variola and vaccinia.

Is variola as frequent and does it run the same course in individuals in whom the vaccination scars are large and deep, as in those where the scars are small, flat and insignificant?

The observations hitherto made fail to discover any difference, or to allow any conclusion in this respect.

Can syphilis be communicated, through the vaccine lymph taken from a child with hereditary syphilis, to a healthy one; or is its development in every case due to inoculation with the fluid taken from syphilitic efflorescences?

So far as experiment has taught, the danger of communicating syphilss, when only pure lymph is taken from the vaccine pustule of a manifestly syphilitic person, is nearly null; and the opinion is corroborated that it is only when blood or the tissue from some syphilitic product is also taken from the syphilitic subject, that such conveyance is possible. The diagnosis between a vaccine and a syphilitic pustule may always be determined with the exercise of proper care.

How is the frequently observed failure of reception of vaccination to be explained?

We are at present unable to account for it; it is analogous to the refractory relation of some individuals to contagious diseases.

Is there reason to suppose that this circumstance may be due to long-continued vaccination with the same lymph?

There are no grounds for the belief that lymph continued from one generation to another takes any less surely, or loses any of its protective power. For various reasons, however, the occasional regeneration of lymph by retrovaccination is advisable.

What diseases are produced by vaccination?

The affections which are occasionally seen as the result of vaccination, are such as may occur in consequence of other specific irritations of the skin—erythema simplex et bullosum, eczema, lymphangoitis, erysipelas, and adenitis suppurativa. The last three are more common in vaccination with original lymph and in revaccination, and in hospitals also, than in private practice, and when humanized lymph is used. The first two complications are of no consequence to the welfare of the economy; the last may, under some conditions, give rise to fever and other dangerous results. In fact, however, all these complications are extremely rare.

After long discussion of many of the points presented in the report of the committee, by physicians from all parts of the civilized earth, the following vote, proposed by Professor Hebra, was adopted (155 in the affirmative, 6 in the negative):—

The third International Medical Congress declares vaccination to be necessary, and recommends to all governments that it shall be made obligatory.

Erysipelas.—Perroud, of Lyons, describes (in the *Annales de Dermatologie et de Syphiligraphie*, tome cinquième, No. 3) a series of cases of an affection he calls *érysipèle rheumatismale.* The appearances were in all of them of a very mild character, consisting of a fugitive redness and œdema, followed by desquamation, alternating, at times, with the articular inflammation. It is hard to see how they differ from the simple fugacious forms of erythema, which, as is well known, not infrequently complicate rheumatism.

Kaczorowski gives (*Berliner Klinische Wochenschrift*, and *Archiv für Dermatologie und Syphiligraphie*, 1873, 3 and 4 Heft) a new method for the treatment of erysipelas. Since its introduction into the hospitals of Posen, there has been, he says, no fatal case or relapse noticed. The affected portions of skin are rubbed gently every three hours with a mixture of carbolic acid and turpentine (1 to 10), while the surrounding parts are more thoroughly treated. Compresses soaked in lead-water are then applied, and finally, according to the extent of the disease, ice-bladders are laid on, or the whole part is enveloped in cold-water compresses, which are frequently changed. The redness is more intense at first over the rubbed places, or vesication may ensue, but the epidermis soon becomes dry over the diseased parts, and the skin is slowly tanned. In the course of twenty-four, or at the most forty-eight hours, the disease is cut short, and the temperature and pulse suddenly fall.

(To be concluded.)

Clinical Lecture.

ON A CASE OF ECHINOCOCCUS CYST.

By Calvin Ellis, M.D.,

Professor of Clinical Medicine in Harvard Medical School; Visiting Physician to the Massachusetts General Hospital.

The patient, a native of the Western Islands, 43 years of age, entered the Massachusetts General Hospital on February 10th, 1874. At the age of 20, he left his home and went as a sailor to China, and to the Northwest in a whaler. He then went to Australia, and worked fourteen years as a miner and farmer, and has since lived in the Western Islands, California and Boston.

He reports his parents as healthy, and that he was himself well until eighteen months before entering the hospital, when he first noticed *pain in the epigastrium*, for which he could assign no cause. Five months ago, he perceived *swelling of the abdomen*, which steadily increased. About the exact locality of this, he could not be accurate. He worked for a year as usual, but was then obliged to give up, on account of the swelling and pain in the epigastrium, and for the last six months he has been confined to the house. This pain is often sufficient to prevent sleep, and is accompanied by some pain in other parts of the abdomen and by flatulence. The *appetite* is at times poor, though now pretty good. Food causes no trouble, except a feeling of fulness. The *bowels* have been constipated since the beginning of his illness, and are now opened only by medicine. There has been no difficulty in *micturition*, and no change in the appearance of the *urine*.

He has never noticed any swelling of the extremities. There have been no febrile symptoms, and no yellow discoloration of the skin, which is naturally swarthy. When well, weighed from 175 to 180 pounds; now, 155 to 160. Though the strength has diminished, he states that he could now walk two or three miles, if it were not for the discomfort caused by the distended abdomen. Dyspnœa has not attracted attention particularly, though when he walks up stairs rapidly he perceives a greater difference than formerly. The pulse is normal.

Diagnosis.—Observing the usual rule of considering the rational symptoms fully, before making a physical exploration, we recognize the affection as *chronic.*

All the earlier symptoms point to the *abdomen,* and none have since appeared which might not be explained by disease confined to this part.

The prominent symptoms are *enlargement and pain.* As mere tension and pressure may cause pain, and as it is too common a symptom to connect with any particular disease, we will first consider the various *causes of abdominal enlargement.* They may be found *in the parietes or in the abdominal cavity. We may have a simple increase of the normal tissues, organs, fluids or gases, or modifications of the same, or new formations of various kinds.* In making an eliminative diagnosis, we should limit the field of inquiry as rapidly as is consistent with safety; and, therefore, in a case like this, where the history points to no such derangement of any particular organ as to furnish a clue, we should at once resort to a physical exploration. We can gain nothing by vague speculation as to what is possible. We need more material to work with. We may say, however, that we cannot connect the change with any disease which is the consequence of an acute inflammatory process, as there is no mention of any facts pointing to this.

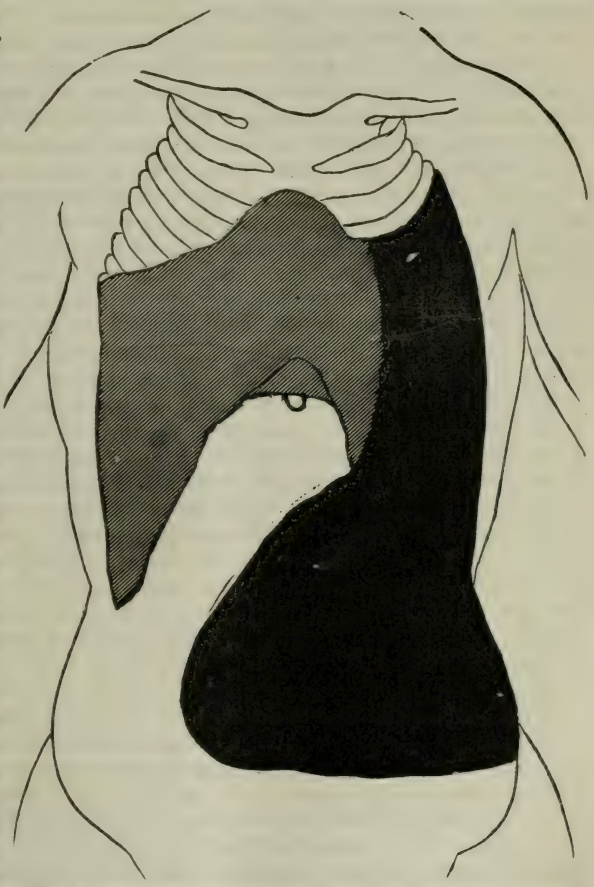
We notice at once *a great enlargement of the whole abdomen,* which measures forty-five inches through the umbilicus. We notice, also, that this enlargement *affects the upper part covered by the ribs, as well as the lower.* We are impressed with the idea that some force has caused the expansion of the lower part of the chest as well as the abdomen.

We now ask ourselves what agency may bring about this condition of the parts. Can it be attributable to disease of the parietes themselves? *Is it caused by a great accumulation of adipose tissue?* It would certainly be very remarkable if, while our patient has lost twenty pounds in weight, fat should have accumulated to such an extent in the abdominal parietes. The very appearance of the external surface negatives such a supposition. It has a tense, shining look, which indicates distention, and this is never seen in an accumulation of adipose tissue. Neither does the latter force out the ribs, as in our case. If we look more closely, we have still stronger evidence of some other cause. *The external surface is irregularly nodulated,* though the nodules are few in number, quite flat and rather indefinite. They vary from one to six inches in diameter. We might, perhaps, have something of this appearance from a tumor in the parietes, but it would in that case be confined to one part of the abdomen, and would not cause such general distention. *We have reason to think that the disease lies beneath the parietes,* but the sense of sight can carry us no farther.

Such a change of form may be caused by distention of the intestines by gas, or by some new formation within the peritoneal cavity. We must use the senses of touch and hearing to bring us nearer to our aim. On *palpation,* we find these *nodules tense and elastic.* The sensation is that communicated by *aëriform, fluid or semi-fluid matter.* We notice a greater resistance than usual to pressure, but no distinct outline can be made out, while the ribs interpose an unyielding wall above.

We must make use of *percussion,* and this shows at once that the matter is *not aëriform,* that there is an *absence of the ordinary resonance* of the part, that there is *perfect flatness* on percussion, while the right side

of the abdomen is unusually resonant, and that this resonance is such as belongs to the distended intestines, and that it gradually blends with that in the upper part, which indicates the presence of the stomach. We have now to inquire whether the flatness is attributable to *some change of the intestines or their contents, or to some body which occupies their place.* We have no symptom connected with the intestines which would lead us to suspect that the disease involved them, as the only difficulty has been constipation, which would be the natural result of such pressure. The line which separates the flat from the resonant portion is too uniform, the flatness too complete and too continuous to allow us to admit any of the usual diseases of the intestines or any accumulation of their contents. We must, therefore, conclude that we have *some body which has displaced the intestines, and crowded them into the right side and upper part of the abdomen.*



We must now endeavor to ascertain *the nature of this formation.* But, before attempting to decide upon its character, we must bear in mind that we do not yet know *its extent,* and this knowledge is essential. As it disappears beneath the ribs, the sense of touch will not aid us; we must again resort to careful *percussion.* The line of dulness in front rises as high as the second rib over the sternum, extends to the right, downwards and outwards around the chest, to a point two inches above the lower angle of the scapula, while on the left side it rises to the axilla, then follows the spine of the scapula, and falls obliquely downwards to the eighth dorsal vertebra.

The lower limits are well shown, and require no detailed description.

You will notice that there is an *absence of the usual complete flatness*

in the cardiac and hepatic regions, though the dulness is very decided here when compared with the resonance around. You will also notice that the *dulness of the cardiac region rises higher than usual*, and we must satisfy ourselves in regard to the cause of this as well as of the shade of resonance. We cannot be guided by the form of the dulness, as it is continuous with that which extends around the body on both sides. The location and character of the sound and impulse, however, may prove sufficient. The impulse is found to be most marked between the fourth and fifth ribs; that is, one rib higher than usual, which corresponds with the elevation of the upper line of dulness. Auscultation shows the normal sounds in this region. We are, therefore, justified in believing that *the organ is simply displaced upwards.*

Knowing that this is the case, we can now *explain the modification of the flatness.* Immediately below the heart is the tympanitic resonance of the stomach and intestine. As the tension must be great to cause this displacement, we have good reason for believing that the flatness is modified by the gas contained within these hollow organs.

Let us now examine the *dulness of the lower part of the right side of the chest.* Here, too, there is absence of the complete flatness ordinarily found, and we must explain it if possible. We have no such facilities for proving that the liver is beneath the surface as in the case of the heart, but are obliged to rely upon the sounds yielded by percussion. But knowing that this is the hepatic region, that the form of dulness is that of the liver, that the normal pulmonary resonance and respiration are heard just above the line of dulness, and that other parts are displaced, we may fairly conclude that the *liver is simply pushed higher up than usual*, and that the *increase of sound is owing to the upward pressure of the intestines.* This happens so often under other circumstances, the area of dulness is so often diminished when the intestines are distended, that we can never conclude that the size of the organ is diminished by percussion alone.

We have now ascertained that the heart and liver are simply displaced; the absence of symptoms is explained by the absence of any change we can appreciate, except that of position.

We have now to consider *whether the change from resonance to flatness in those parts of the chest usually occupied by the lungs be attributable to a similar displacement of these organs.* We have already spoken of the right lung in connection with the liver. The posterior dulness on the left side may be owing to some change in the lung itself, to the presence of some fluid or solid in the pleural cavity, or to the projection of the abdominal mass upwards.

On percussion, we find normal resonance, and the normal respiratory sound above the line of dulness, by which both are abruptly limited. When there is disease of the pulmonary tissue, some abnormal sound will be heard in the large majority of cases; but as none such is heard, and no symptoms give us reason to infer that disease exists, we may conclude that the cause of dulness is outside of and beneath the lung. As the line does not vary with the change of position, and as there is no bronchial respiration or modification of the voice over the flat region of the chest, we cannot admit that the abnormal condition is attributable to fluid within the pleural cavity, and it certainly seems unnecessary to suppose that we have some new formation here entirely distinct from that in the abdomen, when it seems to be perfectly contin-

uous with it. We may, therefore, justly conclude that *we have a single large irregular mass, through whose agency the different organs mentioned have been pushed aside.*

The next question to decide is, *what organ or tissue is the seat of this formation and where it originated.* No symptom, no physical sign will enable us to connect it with the lung. The flatness is continuous with that of the *spleen,* and we may well ask *whether it may not be an enlargement of this organ.* There is no history which calls attention to the spleen, and the form is not that which an enlarged spleen assumes; the mass projects more at the lower part, and fills less of the upper portion of the abdomen than this organ does when enlarged uniformly.

In regard to the *kidney,* the history excites no suspicion. An examination shows nothing abnormal, except a specific gravity of 1·030, a small amount of sugar and a considerable number of crystals of oxalate of lime. The presence of sugar might prove of importance if found to be constant; but we need not consider it here, as it has no apparent bearing upon the tumor.

Failing to ascertain the exact seat or connection of the tumor, let us endeavor to ascertain its *character,* as this may aid us in determining its seat. Its slight compressibility and great elasticity suggest a *fluid contained within a tense membrane, or a soft solid.* The absence of any fluctuation does not prove that it is not a fluid, as with a certain tenseness of the containing walls we may have no fluctuation, and the structure may be such as to prevent the transmission of the wave. Still, we must bear in mind that some of the solid growths simulate, in some respects, collections of fluid; that they may not only contain cysts, but that fatty, fibroid, myxomatous, sarcomatous and cancerous formations may be of such consistence as to give indications identical with those of fluid. But we must also remember that these peculiar properties belong to fluidity, and are only present when fluid to a certain extent is combined with the solid; so that if reduced to this test alone, we must consider that we have a fluid rather than a solid. Still further, *fibroid growths,* of this size, in this situation, are very rare, and would probably appear much firmer. *Myxomas and sarcomas* are also very rare. A *cancerous growth* would probably be attended by much more constitutional disturbance. The indications being, therefore, that we have a *fluid,* we have reason to believe that *this fluid is contained in a cavity or cavities distinct from that of the peritoneum,* as the mass is limited to one side of the abdomen and presents a uniform outline. Even if such a regular adhesion of the intestine were possible, we should not expect it to take place so completely as to cut off a portion of the cavity without any previous symptoms of inflammation. The *large nodules* which are seen and felt on the surface *indicate that there are sacs of various sizes.*

Having reached this point, we are prepared to ask *what kind of cysts are likely to form.* They may be owing to some *change in the tissues* or to the presence of *parasites.*

The *kidney* is frequently the seat of cystic formations. These are of two kinds. In the first, we have one or more cysts, generally very small, but possibly as large as a man's head, supposed by many to result from an occlusion of the tubuli. In the second variety we have an immense aggregation of cysts, occupying the place of the ordinary renal structure; but these are found so early in life they are supposed

to be congenital. The size and form of the growth we are investigating would make the presence of either of these very improbable, unless everything else were excluded.

Simple cystic formations in the *spleen* are very rare, and need not detain us.

Another variety of cyst is that caused by *the introduction within the body of the germs of the echinococcus.* The cyst thus formed may attain any size compatible with the life of the patient, and we are likely to have nodules, as in the case before us. It may be developed without interfering with the function of any organ and, without causing any more constitutional disturbance than may be fairly attributable to compression. But we have nothing absolutely characteristic, as the peculiar "tremor" noticed in some cases is not felt, and we must admit that, although the last variety of cyst is much the most probable, we lack the absolute proof that it is present. *We have only reached the point of relative probability.*

But we fortunately have means in reserve which may enable us to ascertain exactly the character of this enlargement, after satisfying ourselves that the mass will admit of puncture without injury. We may pierce it with a delicate trocar, attached to a *pneumatic aspirator*, and prove the correctness or incorrectness of our supposition. The trocar being thrust into one of the smallest prominences, about an ounce of *perfectly clear fluid* is withdrawn. The appearance of this strengthens our belief, but its chemical character is of greater importance than its limpidity, as we are told by Frerichs that the only cyst in the body which contains *fluid without albumen* is that of the echinococcus. *The application of the ordinary tests shows that no albumen is present.* There is another point connected with the withdrawal of the fluid which is interesting, as it has a bearing upon the multilocular character of the mass. After the withdrawal of the fluid, the *small nodule disappeared.* Had this prominence been only a part of a large cavity, the remaining fluid would have distended it as before. We have reason, therefore, for believing that we emptied a single cyst only, and that, by repeating the puncture in another part, still stronger evidence of its true character may be obtained. This being done, the same limpid fluid escapes, but the flow is suddenly arrested. Let us examine the canula. We notice, in the end, *a minute fragment of a white gelatinous material.* On placing this under the microscope, we see *the peculiar striations which belong to the cyst of the echinococcus.*

Our minds being now clear in regard to the *character* of the disease, we may again attempt to answer the question about its *seat.* As the echinococcus has no special seat, but may locate itself in any of the organs or tissues of the body, we are no better able to answer the question than before.

As the disease is rare in this country, it may not be unprofitable to give you a brief account of it. A minute *tape-worm*, the *tænia echinococcus*, is at times found in large numbers in the intestines of dogs, particularly in Iceland. The ova of these worms are discharged, and are accidentally introduced, probably in the food, into the stomach and intestines of human beings. The ova are there hatched, and the resulting embryos penetrate the walls of the alimentary canal, and make their way or are carried in the circulating blood to all parts of the body, where they undergo a limited development and form the *scolices.*

These are round or oval bodies, from one-fifth to one-twentieth of a line in length, the shape varying according to the projection or retraction of the head. I will not enter into minute details of structure, as such may be found in your text-books, but will only mention some of the most striking features which may aid us in diagnosis. Upon the head are two rows of hooklets, which may become detached, and are at once recognized when seen under the microscope. The irritation caused by the presence of these parasites excites the action of the surrounding tissues, which ends in the formation of a dense cyst continuous with the adjacent parts. Within this dense membrane is found a soft, white gelatinous cyst, the walls of which, under the microscope, show a delicate striation. The inner surface is often studded with minute points, which indicate the presence of broods of echinococci. This cyst is the parasite distended by the clear fluid already seen. Within it may also be found an infinite number of secondary cysts, and within these, perhaps, tertiary cysts. Floating in the fluid are at times more or less perfect scolices, or fragments of the same. For either of these we have looked in vain, but their absence is not unusual, as many of the cysts may be "barren," and contain no descendants.

You are now prepared to understand why the development and multiplication of these cysts may cause such enormous enlargement and distention of the body.

The Prognosis is always doubtful, as the cysts tend to enlarge and may be attacked by inflammation. They may prove fatal by compressing various organs, or by rupturing into the pleura, pericardium, peritoneum, or some large bloodvessel. They may, on the other hand, open externally, or into the bronchi and intestines, and their contents be discharged, with relief to the patient. They may also shrivel, or become cartilaginous or calcareous. But this favorable result is seen in the smaller cysts, which escape observation. Hence we cannot safely leave our patient to nature.

Treatment.—The treatment should be such as tends to arrest the growth and secure the diminution or expulsion of the cysts. Surgical interference has been successful in securing these ends, but it has also been attended by fatal results.

Unless the trocar used in puncturing be very fine, inflammation may be excited by the escape of the fluid into the peritoneal cavity. On this account, none of the more effectual methods of treatment should be resorted to hastily. A patient may live ten or twenty years, or more, but generally not so long. When once detected, the disease is liable to prove fatal in from one to four years.

When, therefore, the walls of the chest or abdomen are forced out, we should be prepared to act. A single puncture may be followed by recovery. When repeated, the fluid from the later puncture may be purulent. The simple puncture succeeds when the wall is thin and elastic, and there are few or no secondary cysts. Injections of water, iodine and other things, may be used. The difficulty is to make an opening large enough to allow the cysts to escape without exciting dangerous inflammation. For this purpose caustic has been employed, but the adhesions excited by it are not always firm. An incision may be made if the tumor project and the skin be reddened.

With the exception of the punctures made, the only interference with the patient has been to regulate the diet and relieve the constipation.

Boston Medical and Surgical Journal.

Boston: Thursday, June 4, 1874.

At the late meeting of the Social Science Association in New York, two of the most important medical papers were on "Tent Hospitals," by Dr. J. W. Jenkins, of Yonkers, and on "School Hygiene," by Dr. D. F. Lincoln, of Boston. We do not consider the former, because the matter comes up at this week's meeting of our State Society. There are some points in Dr. Lincoln's paper that deserve to be noticed at greater length than is possible in this number. With regard to the problem of ventilation, we may as well look the fact in the face that good ventilation is necessarily expense. The air that escapes is heated, and much warmth is necessarily thrown away with it. It is impossible to admit fresh air into schoolrooms, crowded as they generally are, without serious exposure to many of the pupils. Dr. Lincoln held that the expense of having more rooms would be a good investment, in view of the great benefit that the health of the children would receive from it. The construction of the seats and desks was duly considered in regard to its effect on the shape of the body. It is so evident that the seat should not be far enough from the desk to permit the occupant to stand between them, that we cannot refrain from hoping that in stating this fact Dr. Lincoln was merely laying down general law, and not criticizing any furniture now in use. We also entirely agree with him that "it is a good plan to make the lid in two pieces, so that the near piece swings up on hinges, furnishing a book-holder when not used to write upon." The reader strongly urged the introduction of light gymnastics.

This last subject brings to our minds an event which we hope is not without significance. While we fear we must admit the truth of much that is said concerning the physical degeneration of our women, we are inclined to think that the same is not true when applied to the men. A few weeks ago, two foot-ball matches were played between ten picked men of McGill University, of Canada, and the same number from Harvard University, on the grounds of the latter. The match of the first day consisted of three games, played according to the American rules, that of the second day of three according to the English rules, which latter limit the game to half an hour. Neither college had any practical knowledge of the rules of the other's game, so that mistakes requiring rectification were frequent on both sides, but as the English game is most complicated, the Harvard men were in this respect rather at a disadvantage, though perhaps this was more than

compensated for by being at home, familiar with the ground, and surrounded by their friends. The Harvards won all three games of the first day's contest, while those of the second ended in draws, a result which far exceeded the most sanguine expectations of their friends. We were equally surprised and pleased to learn, although it diminishes the glory of the victory, that this was due to the superior weight and strength of the Harvard students.

We understand that the American Missionaries in Central Turkey are endeavoring to establish a College at the city of Aintaf, and that they propose to have a Medical Department connected with this college. We have been shown an interesting paper, prepared by H. S. West, M.D., and entitled, "*Reasons for the Establishment of a Medical School in the Interior of Turkey.*" Dr. West has resided in Asia Minor as a Medical Missionary of the American Board for the past sixteen years. He has had an extensive practice, and evidently speaks from a personal knowledge of the subject. The reasons which he presents are certainly such as will meet the approval of the profession in this country. Those who wish to obtain a copy of these reasons, together with a statement in regard to the proposed College, can do so by applying to T. C. Trowbridge, Rooms of the A.B.C.F.M. Cong. House, Boston. The undertaking was heartily endorsed in New York by a meeting of well-known physicians, held at the house of Prof. Willard Parker, who was appointed Chairman of a Committee to receive contributions. Contributions of money, medical books, medicines, hospital furniture, surgical instruments and philosophical apparatus are respectfully solicited. They may be sent to Mr. Trowbridge, to the above address. Mr. Trowbridge is the authorized agent for the proposed College and Medical School. The Board of Trustees in this country is composed of the following gentlemen:—

1. Ezra Farnsworth, Esq., Boston, Mass., *President.* 2. Jas. M. Gordon, Esq., Boston, Mass., *Treasurer.* 3. N. G. Clark, D.D., Boston, Mass. 4. R. H. Stearns, Esq., Boston, Mass. 5. H. Lee Norris, Esq., Princeton, N. J. 6. W. M. Taylor, D.D., New York. 7. Noah Porter, D.D., New Haven, Conn. 8. W. H. Thomson, M.D., New York.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, May 20 and 23, 1874.)

Operations were performed in the following cases:—Fistula in Ano, Talipes Equino-varus, Cancer of Penis, Talipes Equino-varus, Syphilitic Ulceration of Larynx, Stricture of Urethra with Extravasation of Urine, Disease of Knee-joint, Disease of Toe-joint, Parotid Tumor, Epithelial Cancer

of Lip. During the week, Railroad Injury of Leg and Foot, Nævus, Hæmorrhoids, Caries. Three seances of Lithotrity in two cases of Vesical Calculus.

Fistula in Ano—in a man. Laid open by Dr. Clark.

Talipes Equino-varus—single, in a baby six months old. Tenotomy of tendo Achillis.

Cancer of Penis—of four years' duration, following a "chancre," in a man thirty-six years old. It consisted of a hard, nodular, ulcerating mass, as large as an English walnut, involving the whole prepuce, but leaving the glans penis unaffected. The whole mass was excised without opening the urethra; the fresh border of the remaining integument was stitched to the base of the glans.

Talipes Equino-varus—single, in a child sixteen months old. Dr. Clark divided the tendo Achillis.

Tracheotomy, on account of Syphilitic Ulceration of the Larynx—in a woman twenty-four years old. Frequent attacks of spasmodic closure of the glottis had occurred, and she was at times in great danger from asphyxia. Operation by Dr. Clark.

Stricture of Urethra with Extravasation of Urine (case reported May 21 and 28).—The bladder had been relieved from day to day by punctures over the pubes and evacuation by the aspirator. All attempts to enter the bladder had been unsuccessful on account of extensive laceration of the urethra before admission to the hospital. The extravasation occurred suddenly, three hours before the operation. The penis was enormously distended, the cellular tissue above the pube involved, and the bladder reached to the umbilicus. Perineal section was performed, and the urethra opened behind the stricture. A bougie was then passed forward from this opening through the stricture until it emerged from the meatus. Using the bougie as a guide, the filiform bougie of Voillemier's divulsor was passed through the stricture, the instrument then attached and made to follow. The stricture was ruptured with a large tube, and a number 12 elastic catheter passed into the bladder and left, after evacuating nearly two quarts of urine. Free incisions were made in the integument of the penis, in the groins, and over the pubes down to the aponeuroses; wherever the urine had been in contact with the cellular tissue its fatal effects were already apparent.

Disease of the Knee-joint—of one year's duration, in a woman twenty-three years old. For ten months, her history had been that of chronic synovitis; but, latterly, hectic, night-sweats increasing, and other constitutional symptoms had developed. Amputation of the thigh, by the flap method, at the junction of the middle and lower thirds, was performed by Dr. Clark.

Disease of Toe-joint—in a boy five years old. A fistulous opening communicated with the diseased surface. Amputation of toe by Dr. Clark.

Parotid Tumor—of the size of a hen's egg, and four years' growth in a man, forty-two years old; a curved incision of three inches was made through the skin, the superficial layer of normal gland tissue, usually found covering tumors of this sort, was exposed and divided; the growth was then removed. The vessels were tied and the wound closed by sutures.

Epithelial Cancer of Lip.—An ulcerating and painful growth, of the size of a pea, situated just below the nostril, in a woman fifty-two years of age. Excised by Dr. Clark.

Railroad Injury of Leg and Foot—in a boy nine years old; the bones of the leg and foot were crushed, and the soft parts extensively lacerated; the ankle-joint was involved. Amputation by double flaps at the knee-joint.

Nævus—involving the external half of the conjunctival surface of the lower eyelid, in a baby four months old. The lid was everted and the growth destroyed by the galvano-cautery.

Hæmorrhoids—in a woman. Tied by Dr. Clark.

Caries—of tibia, following a blow, in a boy three years old. The disease was located in the lower third of the bone, and did not communicate with the joint. The fistulous openings were laid open, and the dead bone removed by the spherical rasp.

H. H. A. BEACH.

Medical Miscellany.

THE American Medical Association meets next week in Detroit. We believe that two gentlemen have, at their own request, been appointed delegates at large from Massachusetts. As far as we know, none of the District Societies have thought it worth while to send delegates.

HÆMORRHOIDS.—"In a large proportion of persons who suffer from hæmorrhoids, the primary cause is in the liver. Hæmorrhoids are a common result of structural changes in the liver, such as cirrhosis; but they are, also, a frequent attendant of functional derangements, and especially of the loaded state of the liver common in lithæmia."—*From a Lecture of Charles Murchison, M.D.*

ETHER AND CHLOROFORM.—"We are able to say that in the present state of science the medical man *is responsible for every case of death occasioned by the application of ether*, because a careful watching of the respiration is capable of preventing death, whilst the lethal effect of chloroform depends in part on individual predisposition, which the physician is unable to recognize."—*Prof. Schiff, of Florence.*

ACCORDING to the *Lancet*, certified medical men are so scare in Crete, and their fees are so exorbitant, that the government has been absolutely driven to invite the services of quacks. Only fifteen properly qualified physicians are available among a population of 300,000, and they reside, without exception, in the towns, where the peasantry, when ill, have to call on them; £1 is their fee to the nearest village, while £4, £5, £6, and even £10 are charged for visits further inland.

FIVE-AND-A-HALF MONTHS' FŒTUS.—At a recent meeting of the Obstetrical Society of London, Dr. Edis exhibited a fœtus presumed to be only five months and ten days. Premature labor resulted from a fall a week previous. Immediately after the birth of the child, it cried so loudly that it was distinctly heard down stairs, and continued at intervals to cry as loudly as a full-grown infant. Its weight was one pound and a quarter, and length eleven inches. It was fed with gruel, but could not be made warm, and lived but forty-four hours.—*The British Medical Journal.*

AT a meeting of the undersigned, held May 20th, at the residence of Dr. J. B. Gale, the following resolutions were adopted:—

Whereas, the Great Physician, in the exercise of His omnipotent wisdom and power, has removed from the sphere of earthly activities our honored associate and co-laborer, Thomas Sparhawk, M.D., for thirty years a practising physician of Amesbury, and late of Newburyport, therefore—

Resolved: That in the death of Dr. Sparhawk the profession has lost an intelligent and successful practitioner, the medical fraternity a safe counsellor and ever true friend.

Resolved: That in our professional and private intercourse with the deceased he ever exhibited those sterling qualities of Christian excellence and manliness which commanded our respect and challenged our emulation. And we mutually resolve that his proverbial kindness to the poor, and consideration for the suffering shall be imitated by us.

Resolved: That we extend to the family and relatives of our brother our earnest sympathy and fraternal regard.

Resolved: That a copy of these resolutions be forwarded to the family of Dr. Sparhawk, and to the *Merrimac Journal*, *Villager*, *Newburyport Herald* and *Boston Medical and Surgical Journal*, for publication.

J. B. GALE, M.D.,
JOHN A. DOUGLASS, M.D.,
H. G. LESLIE, M.D.,
THOS. S. MCALLISTER, M.D.,
CHARLES S. YOUNG, M.D.

CHOLERA has appeared in the suburbs of Calcutta.

BRISTOL SOUTH DISTRICT MEDICAL SOCIETY.—The following officers have been elected for the ensuing year:—

President.—Dr. E. T. Learned.
Vice President.—Dr. C. D. Stickney.
Secretary and Treasurer.—Dr. C. D. Prescott.
Councillors.—Drs. E. P. Abbé, J. Dwelley, F. H. Hooper, F. A. Sawyer, J. B. Whittaker.
Censors.—Drs. Geo. Atwood, B. J. Handy, H. Johnson, C. D. Prescott, J. J. B. Vermyne.
Commissioner on Trials.—Dr. C. L. Swasey.

ESSEX SOUTH DISTRICT MEDICAL SOCIETY.—The following officers have been elected for the ensuing year:—

President.—Dr. E. B. Peirson.
Vice President.—Dr. Edward Newhall.
Secretary.—Dr. C. A. Carlton.
Treasurer.—Dr. Wm. Mack.
Librarian.—Dr. Wm. Neilson.
Councillors.—Drs. J. F. Galloupe, E. Hunt, A. H. Johnson, Geo. Osborne, E. B. Peirson, G. A. Perkins, Daniel Perley, A. Torrey.
Censors.—Drs. Arthur Kemble, O. B. Shreve, J. O. Webster.
Commissioner on Trials.—Dr. A. Torrey.

NOTES AND QUERIES.

RECIPE FOR "KOUMISS."

MESSRS. EDITORS,—The following formula for the above-named preparation, inquired for by Dr. J. L. Prentiss, of Canon City, Colorado, in your JOURNAL of May 7, 1874, is that of Dr. Townsend, of Cork. A. BIGELOW, M.D.

Toledo, Ohio, May 23, 1874.

"R. New milk, one quart; good thick milk (sour?) or fresh buttermilk, one noggin [a noggin is one gill]; white sugar, three or four lumps. Mix thoroughly till the sugar is dissolved; keep in a warm place in a jug ten hours; pour from jug to jug till quite smooth; bottle in soda-water bottles, velvet corks, tied down; let remain in warm place twenty-four hours in summer, thirty-six in winter. Shake well before taken. Its fermentation is the test of excellence. Drink in quantities."

DIED,—In this city, May 25, of pneumonia, George Fabyan, M.D., 64 years.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and Towns for the week ending May 23, 1874.*

Boston, 146; Worcester, 22; Lowell, 19; Salem, 8; Lawrence, 10; Springfield, 9; Lynn, 9; Gloucester, 4; Fitchburg, 1; Taunton, 10; Newburyport, 6; Somerville, 5; Fall River, 18; Haverhill, 8; Holyoke, 8. Total, 283.

Prevalent Diseases.—Consumption, 55; pneumonia, 32; scarlet fever, 18.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 30th, 127. Males, 66; females, 67. Accident, 1; apoplexy, 3; inflammation of the bowels, 3; disease of the bladder, 1; bronchitis, 5; disease of the brain, 6; cancer, 3; cerebro-spinal meningitis, 2; consumption, 22; convulsions, 3; debility, 1; dropsy, 1; dropsy of the brain, 7; drowned, 1; dysentery, 1; erysipelas, 3; scarlet fever, 5; typhoid fever, 1; bilious fever, 1; hernia, 2; disease of the heart, 8; disease of the hip, 1; intemperance, 1; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 13; marasmus, 4; neuralgia, 1; old age, 9; paralysis, 2; pleurisy, 2; premature birth, 2; peritonitis, 1; puerperal disease, 3; stricture of the urethra, 1; teething, 1; tumor, 1; ulceration of the bowels, 1; whooping cough, 1; unknown, 1.

Under 5 years of age, 43; between 5 and 20 years, 14; between 20 and 40 years, 22; between 40 and 60 years, 28; over 60 years, 20. Born in the United States, 86; Ireland, 30; other places, 11.

THE

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Original Communications.

PUERPERAL CONVULSIONS AND ALBUMINURIA.

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CASE I.—*Pregnancy with great Albuminuria; Labor Normal.*—Mrs. A., aged 31, was in the ninth month of her second pregnancy when I first saw her, Dec. 28, 1870. One month previous to this visit, her family physician had been discharged for advising premature labor for albuminuria. I found the patient feeling as well as she ever did when pregnant; she was about the house, had no headache, dizziness or disturbance of vision; there was œdema below the knees, and occasionally under the eyes. Urine free and clear; specific gravity 1.026; nine-tenths albumen, with nitric acid at end of twelve hours; no casts or other deposit of importance. Advised to drink freely of acetate of potash water, keep her bowels in good condition, and await events.

Four days afterward, she was delivered of a healthy child, and both did well. Two years afterward, she was again confined, with equally good results, both labors being easy and natural.

CASE II.—*Convulsions following Labor; Albuminuria; Recovery. Dr. Geo. L. Underwood in Consultation.*—Mrs. B. had a short, easy labor with her second child, Saturday, Aug. 31, 1872. Did not lose over two ounces of blood during labor. She was of medium size, rather anæmic, and never strong; had been in her usual health during pregnancy; no dropsy, headache, or disturbance of vision; urine free, but not examined. As we were leaving the house, an hour after labor, she complained for the first time of a severe pain in the back of her head; in ten minutes, she had a convulsion. Applied ice to her head, and drew two ounces of albuminous urine. In half an hour, she had another convulsion. Pulse 66 before, and 98 after, the two fits; she did not regain consciousness between them. She was etherized for an hour; on removing the ether, she soon grew restless, her eyes and facial muscles began to twitch, and her pulse rose to 116. She was etherized again, and fomentations of digitalis leaves were applied to her abdomen. Three hours and a half after the first fit, three or four ounces of urine were drawn, an enema of brandy and milk with *twenty drops of laudanum* was given, and ether removed. She soon became sufficiently conscious to complain of a severe pain in the occipital region. In half an hour, she began to flow a little; pulse 76. She was quiet the rest of the night, and had some sleep; no more convulsions.

Sunday, P.M.—Has been stupid all day, but could be roused to take food, and to answer questions. Pulse 76; pupils normal; urine free;

acid; specific gravity 1.022; heat gives six-tenths, and nitric acid five-tenths; albumen at the end of two hours; granular casts, epithelium and pus. Cream of tartar water *ad libitum*.

Monday.—Headache continues; cannot see across the room. Urine free; specific gravity 1.006; one-tenth albumen, with nitric acid at end of twenty-four hours; no casts.

Tuesday.—Not so stupid; headache easier.

Wednesday.—Brighter; vision better; milk present; lochia moderate; urine about normal. She improved steadily, but was two months in getting back to her usual health.

Had the laudanum anything to do in controlling the convulsions? We are inclined to think it did, from the fact that on removing the ether there were repeated convulsions, or convulsive symptoms, until the opium was given, and none afterwards.

Case III.—*Puerperal Convulsions; Albuminuria; Forceps; Death of the Mother in Eleven Hours. Dr. B. E. Cotting in Consultation.*—Mrs. C., a small, pale, delicate woman of 19, fell in labor at full term with her first child, July 9th, 1873. At midnight, the os was dilated an inch, head presenting, pains good. She was about the room, appeared natural, and was courageous and hopeful. In answer to questions about headache, she said there was a slight pain in the back of her head; it was not severe enough to attract attention. She had been unusually well during her pregnancy; no headache, dropsy, disturbed vision, nor failing of strength. Urine free; not examined before labor.

At 3.30, A.M., July 10th, the membranes broke; the head was on the perineum, and labor seemed to be progressing naturally. She lay down upon the bed, had one pain and, without any warning whatever, went into a severe convulsion. She was immediately etherized, and the child safely delivered with forceps. The placenta came in ten minutes, and the uterus contracted well; no unusual hæmorrhage. After the labor was completed, the ether was removed; she soon became partially conscious, and said her head ached a little, but the severest pain was over the uterus, where she could not bear the slightest pressure. She soon had another fit, and never regained her consciousness. Ether was renewed, three or four ounces of albuminous urine were drawn, sinapisms were applied to the loins, and compound jalap powder was given; but the convulsions continued frequent and severe; first one side was paralyzed and then the other, alternately. She vomited everything taken. The treatment by venesection came before us in the consultation, but was not thought advisable. Urine secreted freely; two hours before death, four ounces of urine were drawn; that which was removed six hours before death was clear, rather pale; specific gravity 1.012; nitric acid gave one-half, and heat one-third, albumen at the end of twenty-four hours; there were a few granular casts, but no epithelium, pus, or blood, and at the end of twenty-four hours no sediment, except a slight cloudiness.

Between nine and ten, A.M., there was an alarming rise of the temperature; the skin became burning hot, and the pulse 120, and very weak; the lividity of the face became marked and permanent. Respiration stertorous. Convulsions continued and were of long duration. She failed rapidly, and died at 2.30, P.M. No autopsy.

Case IV.—*Puerperal Convulsions; Version; Post-partum Hæmor-*

rhage; Death of Mother and Child; Autopsy. Dr. Read in Consultation.—M. E., a single, colored woman, aged 30, menstruated for the last time the first week in September, 1872. She fell in labor May 28, 1873. At 7, A.M., the os was dilated an inch; head presenting, membranes entire; pains moderate; pulse normal; no headache; bowels regular, and urine reported free.

At 1, P.M., she had had two convulsions; labor not advanced at all; conscious, but restless; respiration hurried; pulse about 80; no headache, or pain in epigastrium; no disturbance of vision, nor had there ever been any. She had passed two ounces of dark-colored, cloudy urine; specific gravity, 1.035; heat and nitric acid solidified it; it contained granular casts, epithelium and blood. She was kept etherized two hours, but the fits returned as often as ever, in spite of the anæsthetic.

At 4, P.M., version was performed and a dead child delivered. Hæmorrhage not excessive; uterus contracted well; pulse 120. She never fully regained her senses; after the ether had passed off, she had convulsive motions of eyes and limbs, though no distinct fits. Ergot, brandy and laudanum were given freely. An hour after delivery, the uterus began to relax, and a slight dribbling hæmorrhage set in; ice was applied externally and internally with temporary benefit. Three hours later, she became restless; pulse 128. Uterus injected with a solution of liquor ferri perchloridi, one part to three of water. She had lost not over six ounces of blood since the birth of the child. Hæmorrhage ceased, but she never rallied, and died seven hours after delivery.

Autopsy eighteen hours after death. Uterus seven inches long, four inches wide, and two inches thick; walls an inch thick, moderately firm, neither softened nor friable; sinuses mostly arranged in a row, one quarter of an inch from the inner surface of the uterine walls. There were eight fibrous tumors, varying in size from a pea to a pullet's egg; three of them were interstitial, the others sub-serous; they were all above the cervix. The cavity of the uterus contained about an ounce of shreddy clots, but no fluid blood; neither was there a vestige of placenta or membranes; the clot was firmest at the extreme fundus, where the injection flowed from the catheter. No laceration of uterine tissue; placental site at fundus smooth, and slightly raised.

Ovaries apparently healthy.

Left kidney pale and undersized; cortical and medullary portions poorly defined, and the pyramids not distinct; not friable. Right kidney of normal size and consistence, but of a bright red color; the different portions well marked. Both capsules normal. The tubuli of left kidney loaded with granular matter and fat. Other organs not examined.

Case V.—*Puerperal Convulsions; Albuminuria; Premature Labor; Treatment, Sulphate of Morphia; Recovery of Mother. Dr. Geo. L. Underwood in Consultation.* Mrs. F., aged 22, a small, rather delicate woman, came under my care Oct. 2, 1873. She was eight months gone in her first pregnancy. She complained of weakness, headache, dizziness and vomiting; there was general œdema; appetite poor, bowels regular. Urine free, pale and cloudy; specific gravity 1.020; one-half albumen, with heat and nitric acid at end of twelve hours; an occasional granular cast. She was ordered ten grains of compound

jalap powder daily, and a drachm of bicarbonate of potash three times a day. All the symptoms improved a little during the next fortnight.

Oct. 18, Saturday.—Patient has been vomiting two days; the headache has increased till, this afternoon, it became so violent that she has been delirious most of the time; very restless, and conscious only for a moment. Has passed three pints of pale urine to-day. Pulse 80; no signs of labor. Ordered half a drachm of bromide of potassium with fifteen grains of bromide of ammonium every hour; ice to head. In consultation, it was decided to try and bring on labor by passing a bougie into the uterus and plugging the vagina; this was done, the bougie entering the uterus only four inches. In an hour, she was much worse, and no signs of labor; head and eyes drawn to the left; more restless and delirious than ever. She soon had three severe convulsions without regaining consciousness. She was etherized by Dr. McCollom. The os was then dilated with the hand, and a dead child delivered with forceps. Uterus contracted well. Pulse 128. Labor completed at 3, A.M., Sunday.

At 9, A.M., pulse 96; patient rational, but drowsy; very thirsty; urine scanty and high colored; two-thirds albumen with nitric acid, after five hours; granular casts and blood corpuscles. Vision normal. Tincture of digitalis with squills was given every two hours; cream of tartar water *ad libitum*.

1, P.M.—Pulse 28, weak; violent headache; head and eyes drawn to left; vision double; semi-conscious, and exceedingly restless; in short, the symptoms were precisely like those preceding the convulsions, and another fit seemed imminent at any moment. I gave her an eighth of a grain of *sulphate of morphia* subcutaneously.

6, P.M.—Pulse 100. She became quiet soon after taking the hypodermic injection, and in half an hour was asleep; now quiet and comfortable, and has been asleep half the afternoon; headache nearly gone; a marked change from five hours ago. Ordered the same quantity of morphia to be given by the mouth, if restless or in pain.

Monday evening.—Pulse 104; a comfortable day; took one dose of the opiate last night, none since; no vomiting; she takes liquid food freely; œdema diminishing; vision better; urine free, pale and cloudy; specific gravity 1.008; no deposit with heat or nitric acid; pus and epithelium; no casts.

Oct. 23, Thursday.—Pulse 120; severe headache; breasts swollen and painful; mind and vision normal; lochia made its first appearance yesterday. She has passed one pint of urine in twenty-four hours; this was examined by Dr. Buckingham, who reported as follows: "Cloudy, without froth; after six hours, still cloudy. Deposit one-eighth inch in depth; fluid above has reddish-yellow tint; specific gravity 1.020; strongly acid; urea diminished; chlorides normal; albumen abundant. Microscope shows abundance of pus cells; a few blood corpuscles; nothing else to be seen, perhaps from abundance of pus."

Her convalescence was long and tedious; the headache persisted, being at times very severe; œdema soon disappeared; urine always pale and cloudy, and sometimes slightly albuminous. Leeches, iron, quinine, bromides, chloral and digitalis were used. Nothing would stop the headache but morphia, and that never failed; she took one-twelfth of a grain, from one to three times a day, as needed, and always

with relief. Seven weeks after confinement, the urine was scanty and bloody for twenty-four hours; this was accompanied by a severe headache, which terminated in a convulsion; morphia, subcutaneously, relieved her.

Six months after delivery.—Mrs. F. is about and able to do light work, but is not as well as before her pregnancy. No emaciation; no œdema, unless a trifle in her feet; has more or less headache, frontal and occipital, nearly every day. Urine normal in quantity; pale and cloudy, and neither heat nor acids clear it. Specific gravity 1.032; acid; urea normal; no albumen. Microscope shows a few pus cells and vaginal (?) epithelium; no casts or crystals.

In a majority of cases of puerperal convulsions, there is albuminuria; and for a long time the latter was supposed to be the cause of the former. At present, there seem good reasons to believe that, in some cases, at least, this is not a fact, but that both are due to some common cause, as, for example, an abnormal condition of the blood. This idea is based upon the fact that in a number of cases of puerperal convulsions there never was any albuminuria, nor other symptoms of renal lesions; that, frequently, convulsions do not occur in cases of marked albuminuria, even when due to chronic Bright's disease; and that in many cases where careful and repeated examinations of the urine have failed to find albumen, and there have been no other signs of albuminuria, convulsions have occurred, and afterward the urine has been found loaded with albumen (Barker, Roberts).

On the other hand, it is proved beyond a doubt that the greater the improvement in the albuminuria and uræmic symptoms, the less is the liability to convulsions. Dr. Tyler Smith went so far as to say that they could always be prevented if treatment be properly used before the end of gestation.

Practically, then, we are to watch for albuminuria. This condition may exist without uræmia, but there are seldom uræmic symptoms without albumen in the urine. Hence, if the patient has headache, impaired vision or hearing, œdema of face or upper extremities, pain in epigastrium, or vomiting, or suddenly becomes very nervous and irritable, the urine should be carefully examined. It would be well, though hardly practicable, to occasionally examine the urine of all our patients during the last months of pregnancy; we then might be spared the regret which we all must feel in cases like II., III. and IV.

The prophylactic treatment of convulsions before labor consists of saline and hydragogue cathartics, tonics, diuretics, venesection. Should these fail, as they often will, if uræmic symptoms are at all severe, and the patient be near her full time, we should induce labor, controlling the above symptoms with morphia or ether, or both. After labor, we should rely on morphia, ether and venesection; the latter should be used were there symptoms of cerebral congestion, as in the third case, toward the end. I regret that that patient was not bled when those symptoms appeared, and also that opium was withheld at the commencement of the convulsions, though either measure might not have changed the result. The fifth case made a strong impression, and went far to remove the old feeling that opium is dangerous in uræmia. Drs. Fordyce Barker, John T. Metcalf, A. L. Loomis and F. D. Lente all speak in the highest terms of the use of opium in uræmic convulsions. "It is my firm belief that the hypodermic administra-

tion of morphia is the most efficient means yet known for allaying that irritation of the spinal system which culminates in convulsions, and that uræmia does not contraindicate the use of this agent." (The Puerperal Diseases, by Fordyce Barker.) Dr. Loomis, in the *Medical Record*, Aug. 1, 1873, gives the histories of ten cases of uræmic convulsions, three of them puerperal, and refers to seven other puerperal cases, all treated with morphia with good results. In one remarkable case of non-puerperal convulsions, the patient took three grains of morphia, hypodermically, in twelve hours, with benefit. The convulsions were controlled in every case, and in no case were there any bad effects from the drug. We doubt if any other treatment can show such favorable results in cases of like severity.

In the paper above alluded to, Dr. Loomis concludes, "First, That morphine can be administered hypodermically to some, if not to all, patients with acute uræmia, without endangering life. Second, That the almost uniform effect of morphine so administered is, 1st, to arrest muscular spasms by counteracting the effect of the uræmic poison on the nerve centres; 2d, to establish profuse diaphoresis; 3d, to facilitate the action of cathartics and diuretics, especially the diuretic action of digitalis." He recommends that it be given, in small doses, hypodermically, often repeated, and pushed to a sufficient extent to control the convulsions, without regard to respiration or pupils.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By Gilman Kimball, M.D., of Lowell.

(Continued from page 523.)

Case IV.—Mrs. K., of Cummington, Mass., 47 years old, of strong constitution, has had one child; has had ovarian disease of three years' standing; was tapped fifteen months ago; the cyst re-filled slowly; abdomen now greatly distended, and attended with much suffering. General emaciation, œdema of lower limbs, and other characteristic symptoms show the system to be seriously impaired. She has taken some medicine, but with no benefit, and, having no hope of relief by such means, resolves to have the disease removed by an operation.

Operation, performed the 15th of October, 1868. An exploratory incision, three inches in length, brought to view a single and non-adherent cyst. After evacuating it of twenty pounds of albuminous fluid, an attempt was made to dislodge it. Finding it disinclined to yield, the incision was enlarged, and, upon further exploration, it was discovered that there was no pedicle; that the cyst was attached to, and identified with, the entire broad ligament of the left side; that it also took in the fundus of the uterus.

The operation had now gone too far to admit of retreat, and its completion became a matter of necessity. The parts to be divided in this process had a breadth of not less than six inches, and a portion of the same, as before stated, was identified with the uterus. The clamp in such a case was, of course, quite out of the question, nor could so large an amount of tissue be advantageously embraced in ligatures, as they are ordinarily applied in dealing with a pedicle; it was therefore di-

vided into six sections, and each section was embraced in a separate ligature. The cyst was then cut clear of its connection with the broad ligament, the incision being carried from its outer, or iliac border, quite up to its attachment to the uterus. Finally, the uterus itself was cut through its centre, having been first transfixed by a strong double ligature, and each half tied separately. Several of the ligatures attached to the outer section of the broad ligament were cut close; those nearer the centre, as well as those attached to the uterus, were carried downward through the posterior uterine cul-de-sac and out by the vagina. To render the purpose of this arrangement more effectual, that is, to provide, as far as possible, a free outlet for any future accumulations in the pelvic cavity, the ligatures last referred to, instead of being drawn through a mere puncture, were lodged in a silver canula, which had been carried up behind the uterus into the recto-vaginal cul-de-sac by means of a long trocar, the trocar and canula having been made specially for this purpose. The advantages of this modified method of disposing of the ligatures were subsequently made apparent in a most satisfactory degree.

As was to be expected after so severe an operation, there came on, in the course of twenty-four hours, decided indications of peritonitis, characterized, as they usually are, by vomiting and tympanitic distention. These symptoms continued for three days; by this time, there came on a pretty free flow, through the canula, of bloody serum, and in connection with this event there were also several free discharges from the bowels. The vomiting now ceased entirely, and the tympanitic distention gradually subsided, so that in the course of a few hours it could scarcely be noticed. After this, convalescence went on rapidly. The discharge through the canula continued in a greater or less degree for more than a week, and generally it was very offensive. Its characteristic in this respect, however, was materially improved by frequent injections, through the canula, of warm water and chloride of soda, one part of the latter to twenty of the former. Except in this particular, the treatment of the case was the same as in other cases of a favorable character. The canula was withdrawn at the end of one week; the discharge gradually diminished, and in less than a fortnight ceased altogether. The ligatures came away at the end of six weeks. The patient is now in perfect health.

The points of interest in this case are obvious: first, the form of the disease as regards its manner of development, to wit, its involving not only the entire broad ligament of one side, but also a portion of the uterus, with which it was so identified that the removal of a portion of this organ was found necessary in order to complete the operation. This complication, however, is not referred to as a single occurrence. It has been met with in four instances in my own experience, and with proportional frequency, no doubt, by other operators. In two cases of my own, the cyst had for its base both broad ligaments and the fundus of the uterus; twice (the case in question one of them) only one broad ligament was implicated; the remaining one of the two last referred to was not of ovarian origin, but a cyst developed between the folds of the broad ligament. In every instance, except the one under consideration, the operation of removal proved fatal.

The second point to be considered is of practical interest. In two respects the operation was executed in a manner different from that

observed in either of the three above named: first, the dividing off the great breadth of tissue to be severed into small sections, and embracing each section in a separate ligature, thus obviating what is undoubtedly a frequent source of harm, an inordinate and injurious strain upon surrounding parts; secondly, the hitherto untried method of disposing of the ligatures, a method in principle the same as that described in the Portland case, but decidedly more efficient in regard to the special advantage it was intended to secure. It is easy to see that a mere puncture through the floor of the pelvis, occupied by only one or two threads, might remain so tightly closed that much mischief might occur before the fluid accumulated behind it could force itself through; and even after it had done so, the outlet might prove itself altogether inadequate to fulfil the purpose for which it was made. On the contrary, by the canula arrangement, a provision is made whereby all accumulations, as soon as formed, may find a ready and ample outlet.

Upon the general question, whether it might not be well, in *all* cases, to dispose of the pedicle and ligatures in the manner just described, I am not yet prepared to express an opinion. In every instance, however, where from any cause there is reason to apprehend collections in the pelvic cavity, in cases complicated with ascites particularly, an opening through the vagina, according to the plan set forth in the foregoing case, can hardly fail to be of immense advantage. Indeed, it would seem to be the only means of successfully overcoming one of the most serious difficulties connected with ovariotomy—a difficulty not unfrequently met with, and one which, as often as it does occur, is too apt to lead to a fatal result.

Great advantage is sometimes obtained *by washing out* the peritoneal cavity, after the manner first suggested and put in practice by Dr. Peaslee, of New York. A timely resort to this process has undoubtedly been the means of saving patients who would otherwise have succumbed to the effects of blood poisoning. While cases will continue to occur where the same process will prove incalculably valuable, it is also quite clear that in certain cases, where from mere gravitation or some other cause, poisonous collections will take place so low down in the pelvic cavity, that the ordinary process of syringing through the abdominal incision will be of little or no avail.

It is true, that sometimes, in this state of things, the presence of fluid having been unmistakably determined by an examination through the vagina, a puncture in that direction, through the floor of the pelvis, will afford effectual relief. It must be admitted, however, that oftentimes, before a resort to this measure has been decided upon as a necessity, the mischief it was intended to obviate may have been already wrought—that septicæmia has become fully established—and thus the case put quite beyond the reach of remedy. It was to meet this difficulty, or rather to anticipate it, that the plan of primarily providing an effectual outlet through the vagina first suggested itself. The practical results of this plan of procedure have been entirely satisfactory.

(To be continued.)

Progress in Medicine.

REPORT ON DERMATOLOGY.

By J. C. White, M.D.

[Concluded from page 553.]

Furuncular Inflammation.—Kochmann publishes (*Archiv für Dermatologie und Syphilis*, 3. u. 4. Heft, 1873) a valuable contribution to our knowledge of the nature of furuncle and carbuncle. The differential diagnosis between them may be established by the following points: The furuncle is a conical tumor, well defined, and with an elevated base; the carbuncle is flat, scarcely raised above the surface, and blends with the surrounding tissue in a diffused and irregular shape. The furuncle is small, at its largest of the size of a walnut; the carbuncle is larger, at least of the size of a franc, and may reach that of the hand, or a soup-plate. The furuncle, naturally, soon becomes soft, shows fluctuation at its tip, and discharges pus and, later, a small core of dead cellular tissue; the carbuncle is doughy, hard to the touch, and, should softening take place at the centre, a thin, purulent ichor generally oozes from several holes in its summit, and, later, after mortification of a corresponding portion of the skin at its centre, large, dead shreds of cellular tissue are discharged. The opening at the tip of the furuncle looks as if cut out with a punch; the carbuncle appears like a crater. The furuncle is painful to every touch; the carbuncle slightly, and often not at all, even to pressure. The furuncle causes but slight spontaneous pain, and but little or no disturbance of the general condition; the carbuncle is more painful spontaneously, and always makes a more or less serious impression upon the economy. The furuncle is very seldom solitary, and often occurs in great numbers, as many as 100 or 200 occurring either all at once or in succession; the carbuncle is always a solitary swelling, never, or, at least, in extraordinary cases only, do two occur upon the same individual. The carbuncle may, however, be accompanied or surrounded by a number of furuncles. The furuncle may occur everywhere; the carbuncle is never, or with great infrequency, observed on many parts of the body.

That furuncle and carbuncle often occur as complications of the affections of other organs is well known, and it is explained by Kochmann on the ground of their pathological anatomy, the process, according to his view, always beginning as an inflammation of either the sweat or sebaceous glands. In diabetes, furuncular inflammation is especially common. When the intimate and very extensive connection which exists between the capillary system and the sweat glands is considered, it will be easily understood how readily changes in the character of the blood might affect these organs in this disease. First, the irritation from the presence of the sugar in the blood; then the great diminution in the quantity of circulating water (the cause of want of perspiration, or dry skin, in diabetic patients) and consequent thickening of the blood, must cause disturbances in the perspiratory system, which would easily lead to inflammation. Wagner recognized three possibilities in the connection between the diabetic condi-

tion and furuncular inflammation: first, the melituria is either the near or the remote cause of the skin affection; or, secondly, the inflammatory affection produces the occurrence of sugar in the urine; or, thirdly, the skin disease and melituria are the results of a common cause. These propositions Kochmann is not prepared to accept, at least so far as regarding carbuncle and furuncle as a cause of diabetes, and offers the following himself: 1. The frequent development of furuncle or carbuncle which precede diabetes is not the cause, but an earlier symptom of a diabetes which had been previously latent. 2. When furuncle or carbuncle occur in the course of an already recognized diabetes, either a diminution in the excretion of the sugar by the kidneys, or an exacerbation in the disease, may be determined. The relations between furunculosis and melituria are so well established that an examination of the urine in aggravated cases of the former should not be neglected.

In uræmia, furuncle is not unfrequently noticed as an accompaniment, especially in cases which present a mild character, and promise, from the beginning, a favorable termination. The latter and the furunculosis are, according to Kochmann's theory, due to the same cause, for when the sweat-glands act at an early stage vicariously for the kidneys the uræmic symptoms are so much diminished, but the retained elements of the urine acting as an irritant upon the sweat-glands produce in them the furuncular inflammation. Furunculosis, therefore, is to be looked upon as a favorable symptom in uræmia.

In septic pyæmia, too, the appearance of so-called critical furunculosis may be explained by a similar effort on the part of the sweat-glands to throw off the poison from the blood. So in rheumatism, the exanthemata, pneumonia, typhus and various other affections, conditions are found which lend support to these views of the pathological anatomy of furuncular inflammation; that it is, in the beginning, always an affection of the sweat- and sebaceous-glands, and not, as has been generally believed, of the cellular tissue.

Herpes gestationis.—Dr. L. D. Bulkley, of New York, describes, under this name, a rare affection of the skin, which he believes to be peculiar to pregnancy. In addition to his own, he has collected the records of nine almost similar cases, and sums up their peculiar features as follows:—

There is an affection of the skin directly dependent upon the gravid state of the uterus, which may make its appearance at any period of gestation up to the seventh month, and generally continues until the organ is emptied of its contents, and has, in a measure, resumed its former state; this eruption is very apt, moreover, to recur at each successive conception.

The cutaneous manifestations are chiefly an intense irritation, consisting of burning, itching, or stinging, and sometimes pains, with the development of erythema, papules, vesicles, and bullæ up to the size of a hen's egg, the majority of the blebs, however, seldom surpassing in size a large bulla of herpes. These vesicles are commonly in groups, but do not follow any definite nerve-tracks, appearing first, generally, on the extremities, and afterwards involving the larger part of the body. Exhaustion may ensue from the cutaneous irritation, but the disease is non-febrile.

The eruptive disease does not terminate at once after delivery, but

slowly retrogrades by the development of fewer and fewer vesicles at increased intervals, until the disposition thereto ceases entirely. An outburst of greater or less severity is most likely to happen on the third day; it is rare for any manifestations of the disease to remain a month after parturition.

This affection is sometimes accompanied or followed by other neurotic manifestations, as erythema, urticaria and neuralgia, which may continue in the interval of conception, while in many instances the patient experiences perfect health in the *interim*.

This eruption has occasionally been the first indication that impregnation has taken place.

The majority of cases have been uninfluenced by treatment, relief occurring only on the emptying of the uterus.

The children are not, as a rule, affected by the eruption in the mother, although in one case it was accompanied in two instances by a still-birth; here, however, the first eruption was followed by the delivery of a living child, whereas the second conception gave a still-born child without any maternal eruption.

This affection should not be confounded with one occurring in pregnancy observed and described by Hebra, an account of which was given in the June Report of 1873. It is difficult to place the disease definitely. A recent study of an identical case occurring in this city leads to the opinion that it is more closely allied to vesicular eczema than to herpes.

Purpura.—Dr. Humbert-Mollière, of Lyon, communicates to the *Annales de Dermatologie et de Syphiligraphie*, 1874, a long article on the hæmorrhagic form of purpura called by the Germans morbus maculosus Werlhoffi, which is based upon the observation of ten cases, which are given in full. He comes to the following conclusions: The disease of Werlhoff is not an individual affection like acute rheumatism and the eruptive fevers. The eruptions of purpura are met with in a great number of diseases, in persons of the most varied constitution, and in conditions varying from perfect health to the most advanced cachexia. The cause of these hæmorrhages may be attributed in a great number of cases to an innate or acquired fragility of the capillaries of the skin and mucous membranes. This fragility varies greatly in individuals. The alteration of the blood in consequence of any disease will only increase the chances of hæmorrhage. With regard to treatment, the use of mineral acids *(Eau de Rabel, élixir acide de Haller)* has always given excellent results.

Die Sensibilitäts-Verhältnisse der Haut.—Dr. M. Bernhardt, instructor at Berlin, has published under this title a series of charts and tables illustrating the relative sensibility of the skin on thirty-nine different points of the body to the various impressions of electricity, temperature and pressure. They form a simple and graphic standard, by which the amount of variation from the normal condition in various diseases may be readily determined by the practising physician.

Pruritus hiemalis.—Dr. Duhring, of Philadelphia, gives, in a pamphlet bearing this title, a description of a very common affection, but of which he speaks as "an undescribed form of pruritus." In New England there can be no doubt as to its long recognition and very frequent occurrence. It is that itching state of the skin, principally affecting the legs at first, which comes on with the approach of cold

weather in autumn, continues with many persons throughout the winter, and recurs annually at the same season. Upon the itching, follow scratching and, secondarily, various lesions of the skin, mainly excoriations, but often serious and obstinate eczema. The sensations in the skin are most intense at night on undressing, and on days when the atmosphere is driest and coldest. It is as common, perhaps, as is "prickly heat" in summer, and is possibly more prevalent in the country than in the city, inasmuch as a greater difference between the temperature of sitting rooms and sleeping chambers exists in the former. Dr. Duhring's description of the affection (one of the most common forms of pruritus cutaneus) is very interesting.

Mycosis fongöide, or Cutaneous Lymphadenitis.—Demange, interne of Saint-Louis, reports *(Annales de Dermatologie et de Syphiligraphie*, tome cinquième, No. 2) a fatal case of the affection, which has received from the French the above title, and gives an analysis of three cases in which a study of the diseased tissues has been made. In all the cases, the absence of anterior syphilis was established. The beginning of the affection is insidious, consisting generally of appearances upon the skin resembling patches of dry eczema, which are scattered over the surface, and may last an indefinite time. After a variable period, during the existence of the primary efflorescence or months after its disappearance, the characteristic fungoid tumors show themselves. They appear to develope within the skin and project above it. They are hard, elastic, and, ordinarily, slightly vascular. The skin above them is smooth, tense, and wholly deprived of hair; at other times they are violet or red, and resemble a ripe tomato. The cutaneous sensibility is but little changed. They grow rapidly, and may acquire the size of a nut or an orange. They are generally isolated, but may cohere at certain points. They never have a pedicle. When they have attained a certain size, their development is arrested, and some grow smaller and may entirely disappear, while others, generally the largest, soften and ulcerate. This is the most characteristic phase of the disease. Death always occurs from the progress of the cachexia, and is without complications. The characteristic anatomical lesion consists in a new formation of lymphatic tissue infiltrated within the meshes of the cutis, and recognized by the two elements—the reticulum and the lymphatic globules. Ranvier recognizes three forms of disease—lymphadénie liénale, or leucémie; lymphadénie ganglionnaire, or adénie; and lymphadénie cutanée, or mycosis fongöide.

Pills of the Arseniate of Iron.—As arsenic is, in many cases, our sheet-anchor in the treatment of various forms of cutaneous disease, it will be well to bear in mind, from a recent number of the *L'Union Pharmaceutique*, Biett's method of preparing pills of the arseniate of iron, to wit—

Arsenate of iron, 15 centimetres;
Extract of hop, 4 grammes;
Liquorice powder, 2 grammes;
Orange-flower syrup, enough. M.

Divide in 48 pills. Each pill contains 15 milligrammes of the arseniate of iron, and the dose is one pill daily.—*The Doctor.*

Bibliographical Notices.

A Treatise on Therapeutics, comprising Materia Medica and Toxicology. By H. C. Wood, Jr., M.D. Philadelphia: J. B. Lippincott & Co. 1874.

So many works on therapeutics have been published of late, that we are rather surprised to find any one willing to take up the subject again. Yet the object proposed by Dr. Wood in his preface presents a proper explanation, and will tend to lead many physicians, however skeptical they may be in regard to the reputed cures, usually ascribed to this or that medicine, to read a work on therapeutics written with a desire to supply the "need for a book into which should be gathered the many scattered facts in regard to the physiological action of medicine—a book in which an attempt should be made to sift the true from the false, to reconcile seeming differences," &c. This book is evidently the result of an extended research in the literature of drugs, and especially that of physiological experimentation. Whether the busy practitioner would allow the denial of a popular fallacy, "that drugs do not act upon the lower creatures in the same manner as they do upon man," he certainly will hardly feel justified in asserting the fallacy until he has carefully examined the testimony which Dr. Wood has laid down in this book, or the original work of experimenters, so constantly referred to in every medical journal in the world. It seems as if man felt in some degree a sense of degradation by supposing that drugs affect the lower animals in the same manner as they do himself, or else that the theories which have freely and carelessly been set up in the laboratory fail at the bedside. It might, perhaps, have added authority to the book if Dr. Wood had attempted more fully to confirm the physiological by comparison with the clinical effects of drugs. However, his idea would seem to be that clinical results are less scientific than those obtained on healthy men and animals. We most heartily concur with the writer in this view. Hence the proper inference would be that studies on healthy animals have more authority than observation of the effects of drugs in diseases.

No one objects to the teachings of physiology based upon a comparative study of the functions of the organs in living animals; and it is pretty generally admitted that the part of physiology which has been derived by ablation of organs in living animals and by the phenomena thus presented, is certainly not so precise and less scientific; for example, the removal of certain portions of the brain, and the study of the phenomena thus presented, are received, and justly so, with less confidence than where the functions of an organ have been actually observed during life; as, for instance, the movements and reddening of the mucous membrane of the stomach and intestines during the digestion of food. Physiology also owes its present position of advance to the comparative physiology of different species of animals. Then why may not we advance, by the same means, the knowledge of the physiological and therapeutical action of drugs? This is Dr. Wood's plea, and we think it sound.

With regard to the evidence adduced in his work, there may be, and probably with good reason, a difference of opinion. For example, on page 101, in a discussion of the advantage of the injection of ammonia-water into veins for the relief of snake-poisoning, we find a distinct disagreement between Dr. Halford and Dr. Fayrer. The fact seems to be overlooked that different kinds of snakes were used by each of these observers, and that the circumstances of the experiments were different. Having introduced the question of the use of ammonia in snake-bites, Dr. Wood would have done more service to the cause which he has espoused, namely, the founding of a system of therapeutics upon a scientific basis, if he had more freely discussed the merits of the results of each observer, instead of dismissing the subject by stating that "the real value of the remedy must, therefore, be considered as yet undetermined; but, as the injection can do no harm, it should be practised,"

&c. With the small amount of information contained in this book, a practitioner might naturally hesitate before injecting into the veins a solution of ammonia. The toxicological action of this drug is quite freely stated, and might lead a person to judge that the dangers of the injection are rather more than they in fact are.

Inasmuch as Dr. Wood has classified ammonia among cardiac stimulants, one might infer than an explanation of the benefit of ammonia in snake-bites is caused by the stimulating effects on the organs of circulation.

The article on alcohol may not perhaps please those members of the medical profession, who are advocates of strict abstinence from alcoholic medication, and we are happy to see due prominence given to the fact that those who are habitual drinkers of alcoholic stimulants show less modifications of animal heat; this fact accords so closely with the effects of the use of alcohol derived by clinical observation, that it should be accepted as a useful basis for the indication in the anti-pyrexic treatment. Still, we must confess some surprise that not more notice has been taken by Dr. Wood of the recent papers of Parkes, Anstie and Binz upon this subject of alcohol, and also the experiments of Prof. Socin *(Kriegschirurgische Erfahrungen: gesammelt in Carlsruhe*, 1870 and 1871, Leipzig) with regard to the treatment of pyæmia, erysipelas, &c., in the military hospitals, during the late Franco-German war.

With regard to its effects upon oxidation of tissue and to the elimination of urea, we think a more liberal discussion might have properly been given of the opposing views, for upon this very fact Dr. Wood bases his explanation of the advantage of alcohol as a food substitute in certain febrile conditions.

We notice that opium is classified under a new heading, Analgesics, and that there is no classification of Narcotics. We expect, with every new work on therapeutics, to find a new classification, and as Dr. Wood founds his system of classification upon direct teachings from experimental physiology, he must, of course, drop the old class of narcotics. The imperfection of the *science* of therapeutics thus becomes more and more apparent, and yet it must most certainly be acknowledged that the system of two general divisions, one including those "substances which act on the solids and fluids of the body," and the other those "substances which act externally to the body," is certainly both useful and convenient. Again, the subdivision of the first general division into general and local remedies follows very naturally, and these into the various classes, according to their physiological effects. Dr. Wood very properly remarks that any system is only a "convenient row of pegs upon which to hang our ideas and facts."

Still, the disadvantages of any classification are very great. Opium, for instance, is not a simple, but a compound drug, made of different active principles or alkaloids, which vary in their effects upon the functions of life; and, consequently, though the compound is an analgesic and a hypnotic *usually*, the alkaloids do not always have a similar action when taken individually. The embarrassment of arranging in this class those drugs which relieve pain, is also increased by the fact that the class of anæsthetics also relieve pain, and yet must be separately treated. Perhaps it is very unfortunate for medical writers that our nomenclature is too *precise* for any proper system of classification of drugs according to their effects.

We rather question the usefulness of introducing so much toxicology in a work on therapeutics. It would seem as if, by attempting to include all that was desirable, Dr. Wood has collected too much. The action of poison on man is so extended a subject that it would have been better not to have connected this with therapeutics, because in stating these poisonous effects it is almost impossible not to prescribe the remedies to be used. Again, it would seem as if Dr. Wood would have done better to have entitled his book the "Physiological Action of Drugs" in relation to clinical medicine. The therapeutics could then have been afterwards applied in a second volume. It is, of course, important to take one step at a time; and then, having gained the confidence of the profession by a systematic treatise on the physiologi-

cal action of drugs, he could very easily have laid the foundation for a rational system of therapeutics in relation to pathology of disease. Having combined the physiological action of a drug with its therapeutical effects, if the first is erroneously founded, the therapeutical application loses weight. There is, no doubt, a real need for a work of this kind, and probably a man of such activity as Dr. Wood will not be disposed to rest satisfied without a revision of a book which has evidently taken a new departure in therapeutics.

The style of writing is certainly very attractive, and much information can agreeably be obtained by the study of this work. We have taken pains to point out some of the defects; not with a feeling of fault finding, but with a desire of helping on the cause which Dr. Wood has espoused, and most heartily recommend our readers to study this treatise carefully, and compare its physiological teachings with their clinical experience. A.

BOOKS AND PAMPHLETS RECEIVED.

Sanitary Arrangements for Dwellings. By William Eassie. London: Smith, Elder & Co. 1874. Pp. 184. For sale by A. Williams & Co.

Observations on the Pathology and Treatment of Cholera. By John Murray, M.D. New York: C. P. Putnam's Sons. 1874. Pp. 58.

Sex in Mind and in Education. By Henry Maudsley, M.D. New York: James Miller. 1874. Pp. 36. 1874. For sale by Noyes, Holmes & Co.

The Electrolytic Treatment of Cancer. By A. D. Rockwell, M.D. (Read before the Library and Medical Journal Association, New York.) 1874. Pp. 12.

Urethrotomy, External and Internal, combined with remarks on the Urethral Calibre. By Fessenden N. Otis, M.D. (Re-printed from the *New York Medical Journal.*) 1874. Pp. 24.

Anatomy of the Invertebrata. By C. Th. v. Siebold. Translated from the German, with Additions and Notes, by Waldo I. Burnett, M.D. Boston: James Campbell. 1874. Pp. 470.

Pistol Ball through the Brain; Recovery without Constitutional Disturbance. By R. F. Baldwin, M.D., Winchester, Va.—In the spring of 1861, I was called to see a youth, sixteen years of age, who received a ball from the accidental discharge of a Colt's parlor pocket-pistol in the hands of a companion a few feet distant. The ball, about the size of a buck-shot, entered the right frontal bone an inch above the centre of the eyebrow, and, passing through the brain, lodged in the occipital bone near the centre of the occipital cross. I was called in to the case by my uncle, the late Dr. R. T. Baldwin, and in making his examination as to the character of the wound, he introduced a silver probe into the orifice and permitted it to fall (the boy lying upon his back) by its own weight, until it reached the *centre of the brain*, when he cautiously withdrew it, without coming in contact with the ball, showing, conclusively, by the direction the probe assumed and the facility of its passage, that it had passed through the brain and lodged at the point indicated.

Upon the receipt of the shot, the boy fell with tremendous force upon his back, but did not lose consciousness for a moment, but expressed great anxiety as to the result.

As a precautionary measure, the lad being in full health, I bled him some hours after the accident, and his bowels were kept free with a solution of Epsom salts. The wound healed rapidly without the development of the slightest constitutional disturbance, and in ten days he returned to his home in Augusta County, Virginia.

In the spring of 1862, he enlisted in the Federal service, where he remained until the close of the war. He is now residing in Maryland, and as far as I can ascertain, has never been incommoded in the slightest manner by this most extraordinary occurrence.—*Richmond and Louisville Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, June 11, 1874.

As we had anticipated, the Annual Meeting of the Massachusetts Medical Society was very successful. The reading of papers began precisely at noon on Tuesday. The papers were, as a whole, very good, and of an eminently practical nature; indeed, the only one that could be called theoretical was of much interest, as the theory it treated of underlies the subjects discussed by several of the other readers. Many of these papers will probably appear in full, but in the meantime a brief review of them may be of some interest.

Dr. Whitney reported a case of Hydro-nephrosis. After a sketch of the pathology of the disease, as described by Rayer and others, the writer gave the history of the case under observation and treatment. The patient was a young man, who had suffered from renal symptoms from childhood. A year ago, a cyst of the left kidney was diagnosticated, filling the abdominal cavity to the left of the median line. The cyst was twice tapped, with an aspirator, through the abdominal walls and peritoneum, the fluid evacuated being purulent. Once, subsequently, the cyst refilled, but was discharged by the urinary passages. The patient is now well. The method of treatment by aspiration was commented on as illustrating the harmlessness, as well as the usefulness, of the lately devised mode of puncturing even the large cavities of the body. The paper closed with some general observations on dilated kidney.

Dr. Graham described the practical application and the theoretical *rationale* of Massage, in its various forms of percussion, kneading, friction, champooing, and active and passive motion. He reported cases of chronic rheumatism, rheumatic gout and sprains, in which benefit had been experienced under his observation from this method of treatment.

Dr. T. B. Curtis read a very interesting paper on Cotton-wool Dressings of Wounds, introduced into the Paris Hospitals by Dr. Alphonse Guérin. After a few remarks on the germ theory, the reader described, in detail, the method of applying the dressings. The necessary amount of cotton wool and of bandages is, apparently, enormous; it must be sufficient to allow the bandaged wound to be firmly pressed without producing any pain. As the dressings are not removed for two or three weeks, it is necessary constantly to watch the temperature of the body, in order to detect any unfavorable change. In summing up, Dr. Curtis said that the advantages are, 1st, entire or

partial prevention of pyæmia, erysipelas, and hospital gangrene; 2d, painlessness; 3d, immobility of the parts; 4th, the rarity of the dressings; 5th the transportability of the patient. The disadvantages are, 1st, the great care necessary in watching the temperature; 2d, the slowness of the last stages of healing, and, 3d, the disagreeable odor.

Dr. Hurd's paper was an elaborate criticism of the various germ theories of disease. It evinced great research and comprehensive judgment. After passing in review the various hypotheses which have from time to time had favor, he expressed his belief that it was yet premature to accept any germ-theory in explanation of complex disease, and gave reasons for rejecting the several speculations as insufficient, inconsistent and unsatisfactory.

Dr. S. D. Presbrey, of Taunton, read a paper on Chronic Cervical Endometritis, giving a connected account of the causes and clinical history of the disease. He recommended that special attention should be given to local treatment, applied by means of the speculum. He alluded to the marked success which he had seen follow the application of astringents to the inside of the os by insufflation, for the use of which he gave special directions.

Dr. Goss read a carefully prepared review of the various methods of surgical dressings recently devised. As typical of the extreme degrees to which theories carry surgeons in practice, the writer introduced the occlusive method of Lister, and the open treatment of wounds advocated by Krönlein, of Zurich. Equally good results are claimed by the exponents of the one and of the other method, but both methods are open, in the opinion of the writer, to practical objections. The antiseptic treatment, so warmly advocated by Lister, is complicated, difficult of execution, and wanting in uniform success in its results. The open treatment, on the other hand, has disadvantages in that the wounded part is left without support, and liable to intermediate hæmorrhage, and the chance for prompt healing is practically ignored. Other modes of dressing wounds, less extreme in their methods than either of the above, were touched upon; as, for example, the treatment by submersion, by cotton wool, by iced water applications, and by poultices. After an apt quotation from the old author Bonetus, to show that there is less originality in methods than is generally thought, the writer closed with certain practical considerations, namely, that surgical dressings should have simplicity of form, should provide for proper drainage, and should maintain rest in the injured part.

Dr. Upham's paper, on the late epidemic of Cerebro-spinal Meningitis, was in effect an appendix to his valuable paper in the last Report of the State Board of Health.

Dr Cowles's paper was a strong and able plea for temporary hospi-

tals and tents. The account which he gave of their trial of late years, in various armies, was very interesting. A hospital, he held, should be built so as to have in each ward as much room for as few patients as possible.

Dr. Clarke, of Worcester, gave a valuable contribution to the literature of Empyema, and reported five cases of paracentesis occurring under his own observation.

Dr. Chadwick's paper on Transfusion aimed at showing that writers have, thus far, failed to grasp a true conception of the simple physiological principles involved in the operation. As preliminary to a better understanding, he proposed to divide the cases, where transfusion is applicable, into four groups, the first including cases of excessive hæmorrhage, where every constituent of the blood is lost; the second, cholera, dysentery, perhaps anasarca, and other serous effusions, in which only the watery elements are removed; the third, anæmia, chlorosis, and the like, where the blood is deficient in one or more of its nutritious ingredients; and a fourth class, consisting of pyæmia, septicæmia, uræmia, perhaps phthisis, cancer, &c., where noxious matters are circulating in the blood. He pointed out that the indications to be met differed essentially in the separate categories, and that, whereas, in the majority of instances, blood alone would meet the requirements, in certain conditions we might hope ultimately to discover a good substitute.

The Council met on Tuesday evening. Dr. Cotting was elected President, Dr. Sargent, Vice-president, Dr. Lyman, Orator for the next meeting, and Dr. Stone, of Wellfleet, Anniversary Chairman. The other officers and the members of the standing committees were re-elected. On adjournment, the Councillors went, by invitation, to the house of Dr. Shattuck, where, together with several other members of the profession, they finished the evening in a most enjoyable manner.

At the general meeting of the Society on Wednesday morning, it was voted to concur in the action of the Council in giving the Library of the Society to the Boston Public Library.

At 1 o'clock, Dr. Nathan Allen, of Lowell, delivered the annual oration, which was listened to with great interest.

The dinner in the Music Hall was pretty much like those of previous years. Unfortunately, several gentlemen who had been expected to speak were unable to attend. The Lieutenant-Governor was present, but being obliged to leave very early, merely bowed to the members of the Society, who rose in a body as he left the hall. The Chairman, the President, the retiring President and many others spoke very well. The Rev. Mr. King made an excellent speech, drawing a parallel between the sphere of the clergyman and that of the physician. Dr. S.

A. Green, in a few well chosen words, praised the efficiency of the City Board of Health. Dr. Stone, of Wellfleet, read a humorous poem, which we are forced to reserve for next week. Towards the end of the session, Mr. S. M. Colcord, President of the College of Pharmacy, made a speech on the relations of his profession with that of medicine, which contained so much deserving of consideration, that we give as much of it as our space permits:

Mr. President and Gentlemen of the Massachusetts Medical Society,—You call upon me to respond to sentiments complimentary to the College of Pharmacy, and, as a representative of that body, I am happy to reply, although as a speaker I feel incompetent to the task of doing justice to the subject.

The Massachusetts College of Pharmacy occupies a position of trust and education between your profession and the production and commerce in all articles upon which you rely to combat, alleviate or cure disease.

Commerce is the interchange of commodities or ideas; its governing law is that of *demand* and *supply*, and is a law as fixed as that of *chemical affinity*. The wholesale drug business is commercial in its character, and is governed by this law; the retail or dispensing business is not, or rather should not be, governed by this law, but by a higher law, a law which governs professions recognizing intelligence, science and art in detail. The apothecary is, or should be, the responsible party to you and the public; he is the party who should make and satisfy the demand for the proper quality, while the physician should make the demand for the article itself.

Whether we like it or dislike it, commerce will furnish any quality demanded; and just here comes in the use of the Massachusetts College of Pharmacy. Its object is to make a demand for educated pharmacists.

I have already said that the physician should make the demand for the article, and if any article is entitled to be called *the article* this is the one; and it is the one, in my judgment, in which the physician should look after the quality. But the object of our institution is not only to make a demand for the educated apothecary, which I think, gentlemen, is more your business than ours; but it is our aim to supply the demand, or make the pharmacist, and certify him to you.

We are endeavoring to raise pharmacy to the dignity of a profession. We believe it to be for the benefit of your profession and the public that this should be done. We believe that the drug business requires it; that great changes have taken place in it, of late years, but not the best changes. We believe that something better ought to greet the view of a customer upon entering a modern drug store than a marble monument suggestive of Mount Auburn, although filled with delicious beverages, or a case of Humphrey's homœopathic specifics, the sale of which is based upon the theory of *no cure no harm*. But the imposing feature of the store is *proprietary medicines*, in which form more than two thirds of all the medicine in this country is dispensed. A demand has been made for them, and commercial apothecaries supply the demand. I have never had time to read the list of all the diseases they are said to cure, and I know of no disease they do not claim to cure. Still, I never could quite understand the necessity of having so many kinds, as I have been positively informed by the discoverer of the original pain-killer that it was the best medicine ever discovered for every disease except worms, and as good for worms as anything else.

But I will not attempt to describe the fashionable drug store, you are all familiar with it; and it lives more by your practice than your preaching. Neither you nor I can change them suddenly if at all; but we can do much to bring forward an educated corps of competent pharmacists, and you all can do a great deal to encourage it, and it is your duty and for your interest to do so.

We now have a school of nearly one hundred young men, earnest workers,

with three good professors, and the school is steadily increasing in numbers, interest and usefulness. We want to do a great deal more; we want a working analytical laboratory, we want a cabinet and library worthy the name, and we want to put ourselves in a position to educate physicians pharmaceutically, to practise intelligently in the country, where there are no good apothecaries. And, gentlemen, we want your aid and influence in this work; we want your aid and coöperation in producing a national pharmacopœia worthy the name; we stand ready to do our part of the work, and you have neglected to do yours.

Mr. President, I have stated that more than two thirds of all the medicine sold in this country is in the shape of patent medicine or nostrums. You may infer, if you please, that this state of things exists from that universal law of *demand* and *supply*. I also stated that your Society or ours can do very little toward restraining or controlling traffic in this form; the great bulk of this business has been developed outside of, if not in opposition to, the drug business. The demand for nostrums is created by direct appeals or advertisements directed to physicians and the public, I may say, in spite of apothecaries aid or influence, although all apothecaries supply the demands upon them for these articles. And so great is the demand for them, that one proprietor, in answer to some inquiries I made of him a short time since, wrote to me that he paid the United States government $120,000 per annum for stamps alone. If you will multiply this amount by 25, it will give you the amount of his sales, retail value $3,000,000; and if you divide this amount by 3, it might, and probably does, give the yearly income of $1,000,000, which is more than all the profit on drugs sold in this city in the regular way.

Now, the point I make is this: educate as many honest young men as you will, and let them know enough to be able to get the degree of graduate of pharmacy from the Massachusetts College of Pharmacy, and no one of them ever will, or can, become a successful nostrum proprietor. And this is the policy we, as a college, are pursuing; we attend to our own business, do our work faithfully, and educate our young men not only to do the same, but to look after the men and medicines that are not up to the standard quality, for our own and our customer's protection and benefit, and do not propose for the present to keep houses of reformation for our neighbors or do police duty.

Silk Ligatures remaining unusually long after Amputations. Dr. J. J. Black reports the following in the *Philadelphia Medical Times* of May 30, 1874:—

"Some time since, I had occasion to amputate a fore-arm for gun-shot wound. I applied four ligatures. Those on the radial and ulnar arteries remained six months. After some time, they become deteriorated and broke off on pulling them. Little abscesses formed, and in about six weeks the knots came away, and left a good stump.

"Again, I amputated a boy's leg at the knee-joint, and the main ligature acted in the same way, but came away at the end of three months, and the stump was an admirable one. I suppose the ligatures must have embraced some tendinous substance, together with the artery ; and such cases should teach one to be, as I thought I was, careful in applying ligatures."

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Wednesday and Saturday, May 27 and 30, 1874.)

Operations were performed in the following cases :—Tumor of Breast, Double Hare-lip, Nævus, Painful Stump. During the week, Deformity from

Burns, Dislocation at the Shoulder-joint, Felon, Paraphimosis, Ruptured Perineum; one séance of Lithotrity in a case of Vesical Calculus.

Chronic Mammary Tumor—of eight months' duration, in a woman twenty-eight years old. It was hard, movable, painful, of the size of an English walnut, and located near the nipple. Excision by a single straight incision of three inches.

Double Hare-lip—in a baby five months old; one fissure had been operated upon successfully, six weeks before, at the hospital. The second one was freshened by excising two V-shaped pieces from each side, the apices pointing from the line of fissure; the raw surfaces were then brought together and secured with silk sutures.

Nævus—occupying the space between the bridge and root of the nose, in a baby eighteen months old. The skin was dissected from the growth sufficiently to permit its strangulation by ligatures without involving the integument.

Painful Stump—of leg, in a man twenty-two years old, from an amputation performed four months before; a fistulous opening, near the cicatrix, communicated with denuded bone. Re-amputation, two inches above the first.

Deformity from a Burn—in a boy four years old. The remaining cicatrices were situated in the scapular region, and also made a web at the posterior border of the axilla, preventing him from raising the elbow. This and other firm bands were made tense by raising the arm, and divided, making an irregular shaped wound, five inches long, over the scapula, and extending into the axilla. This space was filled by a long flap taken from over the deltoid muscle in front. The free borders of the skin were afterwards adjusted, making a wound shaped like the letter L.

Dislocation at the Shoulder-joint—sub-coracoid, in a man thirty-eight years old, caused by falling from a carriage and striking on the shoulder. Reduced.

Felon—one month old, in a man; fistulous openings communicated with necrosed bone. Laid open freely, and the dead bone and flexor tendon removed.

Paraphimosis—in a boy ten years old. Reduced by grasping the prepuce behind the constriction and compressing the glans backwards.

Ruptured Perineum—in a woman twenty-two years old, caused by the birth of her first child, ten months before. She had control over the sphincters. Perineum restored by dissecting off the mucous membrane covering the fissure, and uniting the fresh surfaces by eleven wire sutures.

H. H. A. Beach.

BOSTON CITY HOSPITAL.

(Tuesday, June 2.)

Dr. Williams removed a large, soft tumor of the upper and outer fourth of the conjunctiva covering the right eye of a man who received an injury there some years ago, after which this appeared, first as a small "pimple," but it has now become a broad, thick, fungous mass, covering the conjunctiva as far back as its reflection to the lid, and as far forward as the edge of the cornea, and laterally occupying about one-fourth of its circumference. It is about one-sixth of an inch in thickness, and a thick fold hangs down over the cornea, totally obscuring vision. It is not adherent, however, and upon lifting it away the cornea is seen to be uninjured, and the sight is good. The growth was dissected away entire, leaving the sclerotic bare. Dr. W. said that, although the loss of conjunctiva was large, as much often occurred from burns, and healed without trouble; there would be no danger of adhesion of the lid, because the palpebral portion was not injured. The growth appeared to be principally granulation tissue, with some doubtful-looking, epithelial masses.

2. *Re-amputation of Finger.*—After the original operation, it was frost-bitten, and since then has grown large and clubbed; the end of the stump was found to contain an elastic, fibrous mass, as large as a hickory nut, firmly growing to the end of the bone. Dr. Ingalls.

3. *Removal of Pistol-ball from Chest.*—The patient was a man, who shot himself that morning, and the missile was found near the edge of the left pectoral muscle, about six inches from its entrance.

4. *Necrosis of great Toe.*—Dr. Homans.

5. *Strabismus, both Eyes.*—Dr. Williams.

6. *Plastic Operation for Hypertrophied upper Lip.*—The inner portion was chiefly enlarged, and a fold of redundant membrane existed on each side of the median line. These were cut away, and the wounds stitched together. Dr. Cheever.

7. *Cleft Palate.*—This was the woman the preliminary operation on whom was reported in the JOURNAL for April 2d. The uvula and soft palate had united well, and now there was a large hole, one and one-fourth inches long, in the roof of the mouth. This the doctor closed by the method recently proposed by Mr. Fergusson, of cutting through both the mucous membrane and the hard palate along each side of the opening, and bringing the two bridges thus made together (having first refreshed the edges of the original opening). This leaves two lateral fissures in place of one broad, central one, which are said to heal readily by granulation. Dr. Thorndike.

8. *Caries of Tibia.*

9. *Necrosis of Tibia.* Dr. Homans.

(Friday, June 5.)

1. *Fistula in Ano*—Cut.

2. *Fistula in Ano*—partly cut, and then tied with elastic cord. Dr. Homans.

During the week. Dr. Homans.

Removal of a portion of the Skin of a too-large Scrotum.—It annoyed the patient while walking, on account of its great length.

Amputation of Thigh, for Injury.

By Dr. Williams.—Four cataracts by the median operation. An eye opened for the evacuation of pus, following an injury. Dr. Wadsworth also removed a cataract by Graefe's operation. W. P. BOLLES.

Correspondence.

SUBSTITUTE FOR BINDER.

ROXBURY, May 29, 1874.

MESSRS. EDITORS,—I notice in your last number (May 28th) a recommendation of the obstetric binder to produce pressure in the uterus during labor. A much better plan is that proposed by Dr. Cotting, of passing round the waist a sheet folded like a binder and twisting the ends together during the pains. But the best contrivance is one which I shall venture to call my own, though it may, very likely, have been suggested before. It acts on the principle of directing muscular action, and consists of a sheet twisted loosely in the form of a rope and tied together at the ends. Put the feet into the loop at the lower end and push, grasp the other end with the hands and pull; the power exerted in this way is indefinite; it is the gymnastic paradox of trying to lift oneself, and may be practised, if desired, till the sheet or back gives way. Its effect in labor is surprising, and is immensely appreciated by patients. It brings the body muscles into play. It relieves that distressing sense of helplessness, which all women feel, by enabling them to help themselves. It shortens labor. It saves the use of instruments. Allow me to recommend it to your readers. Respectfully yours,

EDW'D T. WILLIAMS, M.D.

Medical Miscellany.

We understand that the Boylston Prize Committee have received no essays this year deemed worthy of a prize.

Monument to Liebig.—The subscriptions collected for a monument to the late Baron Liebig amount to about 6,000 thalers.

Iceland.—The past winter in Iceland is reported to have been more severe than any since 1822. The west coast has been invaded by quite unusual numbers of polar bears, unwilling visitors, drifted thither on floating ice from Greenland.—*Academy.*

A New Fuel.—A new combustible material, to which the name of white coal has been given, has been discovered in the Australian continent. It is formed of vegetable fibres matted together, between which a fine sand is found. It is easily inflammable, and gives a brilliant flame. This white coal, discovered in the Antipodes, has not as yet been dug up to any extent, and will doubtless be found useful as a fuel.—*London Medical Record.*

Ulcer of Duodenum.—At a recent meeting of the Pathological Society of London, a case of ulcer of the duodenum was reported by Mr. McCarthy, occurring in a child who had been burnt over the chest and abdomen. The ulcer was situated below the margin of the pylorus, and another one was found near it. The duodenum was perforated, and glued to the surrounding surfaces by lymph.—*British Medical Journal.*

Barnstable District Medical Society.—The following have been elected the officers for the ensuing year:—
President.—Dr. T. N. Stone.
Vice President.—Dr. G. W. Doane.
Secretary.—Dr. B. D. Gifford.
Treasurer.—Dr. C. M. Hulbert.
Councillors.—Drs. P. Pineo, C. M. Hulbert, G. N. Munsell, W. J. Nickerson, Jonathan Leonard.
Censors—Drs. G. W. Doane, W. J. Nickerson, P. Pineo, B. D. Gifford.
Commissioner on Trials.—Dr. S. H. Gould.

Worcester District Medical Society.—The following have been elected the officers for the next year:—
President.—Dr. J. T. O. West.
Vice President.—Dr. H. Clarke.
Secretary.—Dr. L. Wheeler.
Treasurer.—Dr. J. G. Park.
Librarian. Dr. L. S. Dixon.
Councillors.—Drs. T. H. Gage, O. Martin, G. E. Francis, E. M. Wheeler, J. M. Rice, W. H. Lincoln, F. W. Brigham, J. S. Ames, Jerome Wilmarth.
Censors.—Drs. E. Warner, A. Wood, G. E. Francis, E. B. Harvey, C. A. Wilcox.
Commissioner on Trials.—Dr. O. Martin.

Middlesex North District Medical Society.—The following are the officers for the ensuing year:—
President.—Dr. Levi Howard.
Vice President.—Dr. D. P. Gage.
Secretary.—Dr. A. W. Buttrick.
Treasurer.—Dr. N. B. Edwards.
Librarian.—Dr. M. G. Parker.
Councillors.—Drs. Levi Howard, G. Kimball, C. A. Savory, N. Allen, J. Spalding, F. C. Plunkett, G. H. Pillsbury, W. Bass.
Censors.—C. M. Fisk. F. Nickerson, L. S. Fox, W. H. Leighton, George Munroe.
Commissioner on Trials.—Dr. John O. Green.

The Medical School of Maine.—The course closed on Saturday, June 6th, Prof. Palmer delivering the closing address. The examinations were unprecedentedly severe. There were twenty-seven candidates for degrees, of whom only twenty-one were successful. In other words, twenty-two per cent. were rejected.

We regret to announce that Dr. Robert Amory has resigned the chair of physiology.

Hydro-Chloral by the Rectum in the Vomiting of Pregnancy.—Dr. D. B. Simmons, of Yokohama, recommends the administration of hydro-chloral *per rectum* to allay the persistent, harassing vomiting of pregnancy. He reports four cases, in which, after the failure of the usual remedies, such as oxalate of cerium, hydrocyanic acid, morphine, &c., the distressing symptoms were made to speedily disappear by the injection of 30 grains of hydro-chloral into the rectum morning and night.—*The Medical Record.*

Formation of true Bone in the Penis.—Dr. J. von Leuhossek, of Pesth, reports (*Virchow's Archiv*, April, 1874) a case of true ossification occurring in the penis, and detected at a *post-mortem* examination of the body of a man aged 42, who had died from typhus fever. The bone, together with a cartilaginous body, occupied the cavernous portion of the organ, originating from the fibrous septum and enveloping the urethra. Small, bony plates have been previously found in the cavernous bodies of the penis by Sigmund occurring always in syphilitic patients.

NOTES AND QUERIES.

Messrs. Editors,—What is the address of the "Supervising Surgeon," to whom application should be made for the "Nomenclature" spoken of in the number for May 28th of this Journal? I have the English work, and want the American also. Liber.

Ans.—Dr. John M. Wordworth, Washington, D. C.—Eds.

Note.

South Boston is a prolific place. Dr. John S. H. Fogg, during twenty-two years' practice there, has attended 3,393 labor cases—one of which was triplets. Of these, one was a living, fully developed nine months' fœtus, one seemed to have been arrested at the sixth month of its growth, and the other at the fourth. From their appearance, they might all have been the same length of time *in utero*. D. G.

Married,—At Brookline, June 4th, Washington Benson Trull, M.D., to Mary, daughter of Hon. William Aspinwall, both of Brookline.

Mortality in Massachusetts.—*Deaths in fourteen Cities and Towns for the week ending May 30*, 1874.

Boston, 127; Worcester, 17; Lowell, 19; Chelsea, 7; Cambridge, 9; Salem, 10; Lawrence, 15; Gloucester, 15; Newburyport, 6; Somerville, 6; Fall River, 23; Haverhill, 5; Holyoke, 8; Springfield, 3. Total, 270.

Prevalent Diseases.—Consumption, —; pneumonia, —; scarlet fever, —.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, June 6th, 117. Males, 54; females, 63. Accident, 4; apoplexy, 1; asthma, 2; inflammation of the bowels, 1; "fistula" of the bladder, 1; bronchitis, 3; inflammation of the brain, 1; congestion of the brain, 2; disease of the brain, 5; cancer, 3; cholera infantum, 1; cerebro-spinal meningitis, 4; cyanosis, 1; consumption, 19; convulsions, 5; debility, 2; diarrhœa, 2; diabetes mellitus, 1; dropsy, 1; dropsy of the brain, 3; drowned, 2; dysentery, 1; diphtheria, 1; epilepsy, 1; "fever," 1; scarlet fever, 2; typhoid fever, 1; disease of the heart, 3; influenza, 1; disease of the kidneys, 3; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 6; marasmus, 5; old age, 3; paralysis, 3; peritonitis, 3; puerperal disease, 1; rheumatism, 2; suicide, 1; teething, 1; tumor, 2; whooping cough, 7; unknown, 2.

Under 5 years of age, 45; between 5 and 20 years, 13; between 20 and 40 years, 22; between 40 and 60 years, 17; over 60 years, 20. Born in the United States, 87; Ireland, 21; other places, 9.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

SURGICAL CASES.

By JOHN HOMANS, M.D.

Surgeon to Carney Hospital.

Popliteal Aneurism; Ligature of the Femoral Artery; Cure.—John A., aged 30 years, entered the Carney Hospital January 26, 1874. The patient has always been well until about eight weeks ago, when, on waking one morning, he found that he could not stand on his right leg, and that he was suffering severe pain from his knee to his ankle. He has been obliged to give up working on account of the pain. On examination, a pulsating tumor is found to occupy the whole of the right popliteal space, anatomically considered, i. e., from the opening in the adductor tendon to the heads of the gastrocnemius. The pulsation can be seen at a distance of ten feet. A thrill is felt when the tumor is touched. Compression of the femoral stops all pulsation. The right lower extremity is larger than the left, and the toes are of a blue color. No pulsation can be felt in the dorsalis pedis, nor in the posterior tibial. The right knee measures 14½ inches; the left, 13⅝. The right calf measures 13⅜ inches; the left, 12⅛. Patient complains of a numb feeling in the toes, especially in the first and second. On the 2d of February, the patient was etherized, and the femoral artery tied at the apex of Scarpa's triangle. Pulsation ceased at once in the tumor, and never returned. The ligature came away on the 21st day, and, except for the confinement to the bed, he suffered but little inconvenience from the operation. He was discharged, well, on the 28th of February, at which date there was no pulsation in the dorsalis pedis, nor in the posterior tibial. The tumor in the popliteal space was very considerably reduced in size. The right knee measures 14 inches in circumference. The man can remember no injury that would account for any rupture or injury of the artery, except that, about five years ago, when storing heavy boxes of sugar, one slipped across the anterior and inner part of his thigh, tearing the skin considerably. He has been at work since March 8th, and has no pain nor inconvenience, except some swelling of both legs, mostly of right; this goes down at night.

May 4th.—I saw A—— to-day, doing the work of a porter in one of the largest dry goods stores in this city. He states that he has no trouble with his leg.

Cancer of Tongue; Cure. Lingual Artery tied and Growth removed.—Thos. O. M. entered the Carney Hospital on February 24, 1874. He is a tailor, 38 years old. On the left side of his tongue, about three-

fourths of an inch from the apex, is a foul, sloughy-looking ulcer, with ragged, everted edges, and an indurated base. The tongue is thickly coated, and articulation and deglutition are difficult. The growth is two and one-half inches in length, by one inch in breadth. Patient states that, about fourteen years ago, a small kernel appeared on the left side of the tongue, a short distance from the apex; this has gradually spread downwards and backwards, producing abundant salivation, and at times causing severe pain. The submaxillary glands are not affected. On the 27th, he was etherized; during the process of etherization, the pulse and the respiration suddenly ceased, without any apparent cause, and for a few seconds the patient's condition was quite alarming; soon, however, pulsation was felt again at the wrist, at first slowly, and then gradually rising from 30 beats a minute to 40, 50, and, finally, to 80; respiratory action recommenced, and there was no further trouble. An incision, about three inches long, was made, from a point over the lesser cornu of the hyoid bone, toward the left mastoid process; the left lingual artery was found beneath the triangle formed by the hypoglossal nerve and the tendon of the digastricus, and tied. The growth was then cut out with scissors, and a margin of a quarter of an inch of sound tissue was removed with it. There was almost no bleeding. Dr. Fitz was kind enough to examine the tumor, microscopically, and reported that it was an epithelioma. The wounds in the neck and mouth soon healed; the ligature came away from the lingual artery on or about the tenth day, and on the first of April the patient left the hospital, perfectly well. Ligature of the lingual artery in connection with operations on the tongue is not a new proceeding; it has been abandoned, I suppose, on account of the troublesome dissection required to secure the artery. The wound is, at the end of the operation, a pretty deep one, and the movements of the larynx and hyoid bone embarrass the operator. As the lingual arteries, according to Hyrtl, do not anastomose, it is easy to see how completely the supply of blood may be cut off from the side of the tongue corresponding to the ligatured artery. This is the second case that I have treated in this way; and I have been well pleased with the results. See this JOURNAL for Jan. 21, 1869.

CASE OF SARCOMA OF THE UTERUS.

Read before the Boston Society for Medical Observation, April 6th, 1874.

By D. H. HAYDEN, M.D.

MRS. O., light mulatto, æt. 59, admitted into Aged Colored Women's Home in January, 1872. Had always been a healthy woman. Father was said to have died of cancer of stomach. Mother said to have died of swelling of the bowels. Had had one child. Menstruation stopped at the age of 45 years. Had during that winter more or less trouble connected with the cessation of menstruation; enjoying then good health until the following winter, when she was again unable to work, owing to the severe pains which she suffered in chest and bowels. After this, was in excellent health, and worked hard for twelve years.

In June, 1867, she asserts that she felt something give way in right groin, while lifting; was taken unwell a few days afterwards, and

catamenia came on subsequently for five months regularly, lasting four or five days, being moderate in quantity, and being preceded, as they used to be, by pains in limbs and back. Between these periods, she had "the whites," which discharge continued ever afterwards, at times alternating with flowing, but never to any large amount until *the fall of* 1871, when she began to flow considerably, every day seeing more or less; and about this time she began to suffer very much with severe pains; these pains, mostly referred to the lower part of the abdomen, she had had, occasionally, for a long time previously, but never of great severity. She was obliged to give up work entirely and keep to the bed in January, 1872, this being followed by an amelioration of all the symptoms, though there was never a day that she was entirely free from pain; discharge, at times, offensive.

March 22, 1872.—With the assistance of Dr. Hall Curtis, the patient was etherized, and a vaginal examination made.

The os was dilated so as easily to admit the tip of the finger, which came, at a short distance within, upon a soft, friable mass, as if projecting from the fundus uteri, and small portions came away upon the finger. These were examined microscopically by Dr. J. C. Warren, who found "abundant small, round and spindle-shaped cells," and gave it as his opinion that the tumor was *sarcomatous.*

Patient had lost considerably in flesh and strength since the previous autumn. There was nearly complete anorexia. Bowels were rather constipated, but dejections were not accompanied by pain. Micturition free and not painful.

The treatment consisted, principally, throughout the whole course of the disease, of subcutaneous injections of morphine to relieve the pain as occasion required. Various tonics employed seemed to produce no result, and were given up, the patient doing as well when not taking them, but begging anxiously for the subcutaneous injections, which rendered invaluable service throughout the remainder of her life, keeping her a large part of the twenty-four hours in a comfortable condition, though at times the pain would be of a most severe character.

In the following summer (1872), patient began to suffer much with various distressing, gastric symptoms, such as heart-burn, "a distressed feeling and pressure (as she described it) in the pit of her stomach," profuse salivation (sometimes filling six or seven spit-cups in the course of the day), nausea, though never vomiting, and occasional attacks of gastralgia. The appetite continued poor, but there was no particular distress brought on after eating. There was, also, considerable tenderness over the epigastrium on pressure, but no tumor to be felt.

Various remedies, such as bismuth, sulphate of zinc, nitrate of silver and alkalies produced but little if any amelioration of these symptoms, they continuing, with varying degrees of severity, up to death.

Aug. 29, 1872, it is recorded:—

Of late, the morphia has been increased to one-third of a grain once daily, with which patient gets on quite comfortably, though if omitted there is great suffering from pain. The gastric symptoms have, of late, been less distressing, and patient has, for several weeks, given up taking medicine for them. Discharge (vaginal) abundant, and at times much colored with blood; generally offensive.

April, 1873:—Patient lingers along without any marked change in the symptoms. Some days, feels bright and hopeful; these followed, invariably, by a change for the worse, she suffering much with pains, and becoming despondent and depressed. Appetite and digestion pretty good. Morphia has been increased to half a grain per day.

May 9th.—Morphia is increased to half a grain morning, and one-fourth grain at evening.

Aug. 23, 1873, it is reported:—

Since last reported, has been steadily failing. Morphia has been gradually increased, so that, at present, it is found necessary to administer two-thirds of a grain every three hours during the day. This keeps down the pain pretty effectively, though patient says that there is more or less continuously in hypogastric region. There is a constant sinking sensation in epigastrium, which is very tender on pressure, but no tumor is to be felt. Anorexia complete, and patient takes but little nourishment. Discharge abundant, very offensive, and often highly colored. In addition to the subcutaneous injections during the day, patient takes at night one to two drachms of McMunn's elixir. This latter, according to patient, has a more quieting and sleep-producing effect, though the injection acts more effectively in stopping the pain.

Died September 1st, at 2½ P.M.

The autopsy was made by Dr. John Homans. There were no thoracic nor cerebral symptoms during life, and the abdomen was alone examined.

Emaciation everywhere extreme.

The stomach was contracted, the mucous membrane pale and rather thin; otherwise free from disease. With the exception of the uterus, the other abdominal organs were healthy.

The uterus was submitted to Dr. James R. Chadwick for examination, and to him I am indebted for the following report:—

"Length of uterus, 3½ inches.

"Length of cavity, 3 inches.

"Breadth of uterus on level with insertion of round ligaments, 2¼ in.

"Thickness " " " " " 1½ in.

"Cavity of uterus almost filled with an irregularly lobulated, shreddy growth, arising from the whole inner surface of the organ, except at the fundus between the orifices of the tubes and the lower half of the cervix. The orifice of the right Fallopian tube seems to be occluded, but that of the other to be free. The vaginal portion of the uterus projects but very little beyond the surface of the vaginal *cul-de-sac*, has one deep, cicatrized notch, and is not at all implicated by the foreign growth. The os externum readily admits a finger. The walls of the organ are somewhat thickened. The limits of the tumor are not clearly defined from the true uterine tissue. At one point on the anterior surface of the body, there was a soft, elastic nodule, as large as a pea, which, on being incised, was found to contain pus.

"The ovaries and free ends of the tubes are bound to the uterus by firm, perimetric adhesions.

"Microscopic examination of the tumor proves it to consist entirely of round and irregularly-shaped cells, and to be a medullary sarcoma."

This specimen is one of rare occurrence, and it is only within the last few years that its presence has been demonstrated in the uterus.

In the *Archiv für Gynækologie* are to be found the following articles upon this disease, for reference to which I am again indebted to Dr. Chadwick :—

Erster Band, Zweites Heft, "On Sarcoma of the Uterus," by von Gusserow.

Zweiter Band, Erstes Heft, "On Sarcoma of the Uterus," by Dr. Hegar.

Dritter Band, Zweites Heft, "Two Cases of Sarcoma of the Uterus," by Dr. Winckel.

Vierter Band, Drittes Heft, "Contribution to the Knowledge of Sarcoma of the Uterus," by Dr. Chroback.

We find given as clinical differences between sarcoma and carcinoma uteri :—

Sarcoma grows invariably from the fundus or body, and never invades the orificium uteri, although often protruding from it.

In *sarcoma* there is very great pain from the outset. This does not generally occur in carcinoma until the neighboring organs are involved.

In *sarcoma*, hæmorrhage appears early, and there is a less amount of fœtid, serous discharge, so characteristic of carcinoma. In carcinoma, the hæmorrhage seems to supervene after sloughing or ulceration has commenced.

The great friability of the *sarcomatous* mass would distinguish it from a fibroid tumor, enabling fragments to be removed for diagnosis by microscope. The slow growth after pieces have been removed, and the relief thus afforded, point to such a course as a most advisable one in treatment. The duration of the disease is often great, running a much longer one than *carcinoma*, sometimes of several years.

In this case, as will be shown, the disease occupies the fundus and body of the uterus, and does not invade the cervix. Hæmorrhage and pain were early and prominent symptoms. There was some smell to the discharge from the very first, but it was not until the later stages of the disease that the discharge became very offensive. The duration of the disease was also a long one. If we reckon from the time that she commenced to be again "regular," in June, 1867, the disease lasted six years. It was not, however, until the fall of 1871 that she began to flow severely, and to suffer severe pain. Reckoning from this date, the disease would have lasted two years, a longer time than is ordinarily the case with carcinoma.

The operation of removing portions of the tumor, we think, in this case, would have been productive of much benefit had it been resorted to, and we regret that the procedure did not suggest itself to our mind, although the disease would eventually have terminated fatally. The mass projecting into the uterine cavity was soft and friable, and the operation could have been easily performed. The source of so much suffering would thus have been, at least for a time, removed, and with return of the growth the operation could have been repeated.

The subcutaneous injections of morphia were of invaluable service, the use of opium or of its preparations by internal administration being very badly tolerated, occasioning many unpleasant symptoms, and being also much less effective. The patient looked eagerly and impatiently for the time to receive her injection, and seemed willing to put up with anything, provided only that she might be kept free from the pain, which, when not relieved by the medicine, was of a most severe and agonizing character.

The absence in this case of any evidence of disease of the stomach is interesting, in view of the numerous subjective symptoms pointing to that organ during life, probably all of reflex origin, unless the large use of morphine was in part a factor.

Since the report of the above case was taken down, there has appeared in the *Philadelphia Obstetrical Journal* of October and November, 1873, a very interesting article "On Sarcomatous Growths of the Uterus," by Dr. Wm. F. Jenks, of Philadelphia.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By Gilman Kimball, M.D., of Lowell.

(Continued from page 572.)

Case V.—Miss T——, of West Newton, 52 years old, unmarried, of healthy, vigorous constitution, began to have an enlargement of the abdomen in 1866. It increased rapidly, and very soon her general health became seriously affected; so much so that for more than a year she found herself obliged to give up all bodily exercise and confine herself almost entirely to her room.

I was first called to see her in October, 1868. She was then very large, her disease evidently ovarian; had been tapped three times, but with only partial relief. Great emaciation, inability to lie down from difficulty of breathing, loss of appetite, œdema of lower limbs, and quickened pulse all showed the disease to be passing through its last stages. The chance of cure by surgical interference was not promising. Great opposition to an operation had been expressed by her attending physician, yet, with so much present suffering, and with only an early death to look forward to, she demanded this possible chance for her life. The disease was removed the 26th of October.

The tumor was of compound character, cystic and solid, and, as had been anticipated, extensively and firmly attached to the parietes, mostly to the right side. After evacuating several of the largest cysts, and enlarging the incision, which, at first, was merely explorative, an attempt was made to overcome the adhesions without resorting to the knife. In this attempt, a portion of the cyst walls gave way, leaving a patch of several superficial inches still attached to the parietes. From this, as well as from various other points, there was considerable bleeding, requiring the application of several ligatures. The pedicle was rather broad and thick, and too short to be easily brought outside. It was therefore tied in the usual manner, and the stump allowed to fall back into the pelvis.

In this, as in two cases before, I carried the ligature down through Douglass's fossa and out by the vagina. Instead, however, of simply passing them through a punctured opening they were lodged in a silver canula, which had been passed up through the vagina into the pelvis by means of a long, slightly curved trocar.

In closing the wound, it seemed particularly desirable to exclude, as far as possible, the surfaces damaged on account of adhesions; more especially that portion to which the patch of cyst wall above referred to still remained attached. In attempting this, I met with some diffi-

culty. The portion alluded to, so desirable to keep outside the peritoneal cavity, extended so deeply and so far down from the line of incision that it was found impossible to wholly exclude it by bringing it forward and placing it in apposition with a corresponding portion of the parietes of the opposite side. To overcome this difficulty, I was obliged to modify somewhat the plan I had usually pursued in similar cases. Finding the left lip of the incision comparatively unharmed as to its peritoneal surface, at the same time susceptible, with a moderate strain, of being stretched to a considerable extent, there was no great difficulty in carrying it fully across the front of the abdomen, and, with its free edge everted, attaching it by deep sutures to the opposite lip, quite below all that it was desirable to keep outside.

As for the right lip, thus effectually excluded, as a part of the abdominal parietes, it was disposed of by folding it inward upon itself, and carrying its free border down and adjusting it by a few stitches to the tegumentary edge of the opposite lip.

Without giving further details, it is only necessary to state that the result of this case was most satisfactory. From the day of operation till recovery was complete, convalescence was uninterrupted and rapid.

The advantage of the canula arrangement was shown by the large amount of bloody and offensive matter that flowed through it during the first week. The instrument was removed the tenth day; afterward, there continued a moderate discharge by the vagina for something more than a week. The ligatures were not detached till the end of the fourth week. Weight of tumor, fifty pounds.

(To be continued.)

Our Weights.—Upon the average, boys at birth weigh a little more, and girls a little less, than six pounds and a half. For the first twelve years, the two sexes continue nearly equal in weight, but beyond that time males acquire a decided preponderance Thus, young men of twenty average about 143 lbs. each, while the young women of twenty average 120 lbs. Men reach their heaviest bulk at about thirty-five, when they average about 152 lbs.; but women slowly increase in weight until fifty, when their average is about 128 lbs. Taking men and women together, their weight at full growth averages about twenty times as heavy as they were on the first day of their existence. Men range from 108 to 220 lbs., and women from 88 to 207 lbs. The actual weight of human nature, taking the averages of ages and conditions—nobles, clergymen, tinkers, tailors, boys, girls and babies, all included—is very nearly 100 lbs. These figures are given in avoirdupois weight; but the advocates of the superiority of women might make a nice point by introducing the rule that women be weighed by troy weight—like other jewels—and men by avoirdupois. The figures will then stand: young men of twenty, 143 lbs. each; young women of twenty, about 146 lbs. each, and so on.—*London Medical Record*, April 29, 1874.

Neuralgia Treated by Nerve-stretching.—At the Clinical Society of London, Friday, April 10, 1874, Mr. Callender read the notes of two cases of neuralgia. In the first, the affection, which involved a stump, seemed to be due to neuritis connected with symptoms of spinal cord irritation. The patient had undergone several operations for the relief of his symptoms, such as amputation and the removal of portions of nerve; and, finally, the median nerve was forcibly stretched by pulling it down from the brachial plexus. No local trouble resulted from the operation; the patient was freed from the pain, and the symptoms of spinal irritation ceased.—*British Medical Journal.*

Progress in Medicine.

REPORT ON SURGERY.

By J. Collins Warren, M.D.

Cleft Palate.—At the second annual meeting of the German Surgical Society, Prof. Simon, of Heidelberg, read a paper on the establishment of perfectly clear speech by closure of fissure of the hard and soft palate. His experiences in this matter are thus formulated :—

1. Perfect speech is established in the rarest cases by the operation of staphylorraphy and uranoplasty. The real object of the operation is, therefore, only rarely attained. Out of sixty cases, forty of which occurred in his own practice, he observed in only a single case perfectly clear speech, which occurred in a girl aged sixteen. This patient had formerly used an obturator of Süersen, but did not speak so well with it as after the operation.

[Süersen's obturator consists of a hard-rubber plate accurately adapted to the roof of the mouth, with a tongue projecting from its posterior edge through the fissure, and reaching nearly to the posterior wall of the pharynx. This tongue widens into a triangular shape at its posterior extremity, assuming the form of a horizontal section of this part of the pharynx. By means of the superior constrictor of the pharynx, the slight interval separating the obturator from the walls of the pharynx is easily closed, thus preventing the passage of air through the nasal passages.]

2. In the majority of cases, the speech is improved by the operation, and this improvement takes place directly after the operation. Practice has no effect upon the purity of the speech, although it improves somewhat the power of articulation, and hence makes it a little more intelligible. In speaking rapidly, however, it becomes again unintelligible.

3. In a high degree of deformity of the palate, which frequently occurs, the most successful operation for uranoplasty or staphylorraphy will not improve the speech.

4. The performance of this operation while the patient is still very young, is of no advantage. Neither the later growth of the parts nor the practice in speaking begun in early life have any influence on the purity of the speech. In spite of years of practice, in deaf and dumb institutions, the patients still retain the same nasal tone which they had immediately after the operation.

5. The nasal tone remaining after closure of the fissure depends upon incomplete separation of the nasal from the buccal cavity, which, in the normal state, is effected by the contact of the soft palate with the posterior wall of the pharynx at a level with the hard palate. In the normal state, the soft palate is raised by the levator and tensor palati muscles to such a height that it touches the wall of the pharynx, which at the same time is arched forward by the superior pharyngi's constrictor muscle, to meet it at this point. In this way, a temporary and complete separation of the nasal from the buccal cavity takes place.

6. The imperfect separation of these two cavities after uranoplasty

and staphylorraphy is caused by the fact that the new palate is not absolutely, but relatively, too short. The soft palate can be lifted by a spatula, so as to touch the posterior wall of the pharynx, but in the act of speaking it is so held down by the pharyngo- and glosso-palatine muscles that it does not reach the bulging wall of the pharynx, and, consequently, the closure of the opening between the two cavities does not take place.

7. The momentary closure of the opening between these two cavities which is necessary for pure speech, so far as this is effected by the soft palate, can be accomplished by stitching the uvula to the posterior wall of the pharynx at a level with the hard palate, so as to leave small side openings (staphylo-pharyngorraphy), or by using a Süersen's obturator. In speaking, the superior constrictor will close the small openings on each side of the palate, which has thus been stitched up to the pharynx (forming an organic obturator); or, in the other case, cling to the Süersen obturator, and thus make the speech almost perfect.

8. The artificial union of the soft palate with the posterior wall of the pharynx is to be preferred to the use of a Süersen's obturator. In both cases, the speech is either nearly or quite pure, but there are certain disadvantages in the use of an obturator. The teeth to which it is attached are injured, the mucous membrane with which it is in contact is easily abraded, and it is difficult to keep the cavities of the mouth and nose clean and free from decomposing fragments of food. The organic obturator, on the other hand, has only a disadvantage from the fact that it is a little more difficult to keep the nose clean than when the parts are normal.

9. In accordance with this experience, the following rules for treatment should be adopted, in order to obtain the purest and most intelligible speech: Closure of fissure of the palate is indicated only at such an age at which the patient would evidently bear the operation well and carry out the orders of the physician during the after-treatment, that is, after the seventh or eighth year. In those cases in which the deformity is so great that speech evidently cannot be improved by an operation, the alternative can be suggested either to wear an obturator, or, after closure of the fissure, to have staphylo-pharyngorraphy performed. Where there is less deformity, the obturator should not be recommended, but the operation for closure of the fissure should be performed, because the speech possibly might thus be made perfectly pure, or at least as pure as with Süersen's obturator. If the speech, however, is still imperfect and unintelligible after the operation, the patient can then choose between staphylo-pharyngorraphy and division of the closed fissure, with use of Süersen's obturator. In those cases in which stitching of the palate to the posterior wall of the pharynx fails to perfect the speech, it is best to advise that the palate should be divided again, and an obturator fitted. In all cases in which the speech is either unintelligible or difficult to understand, long-continued practice in elocution should be advised; because, although the speech will not be purer, articulation will be improved, and, consequently, the speech will be more intelligible.

The *Medical News and Library* for April, 1874, contains an account of a new operation for cleft palate, described in the *Lancet* for February 28th last, by Sir William Fergusson :—

"The first steps of this operation are somewhat similar to the old operation for closing the cleft in the hard palate—namely, paring the edges of the cleft, and making an incision down to the bone parallel to, and about a quarter of an inch from, the edge of the cleft on either side, the point of the knife being carried back just as far as the junction between the hard and soft palate. Into these incisions a chisel half an inch broad is inserted, and its edge directed against the posterior margin of the hard palate and made to cut from behind forwards, thus partly detaching a slice of bone on each side, with the soft tissue and periosteum attached to their upper and lower surfaces. The result of this is that the sides of the cleft fall easily together, leaving a small aperture through the bone on either side. One, two, or, if the fissure be long, three stitches are passed through the lateral clefts by means of an ordinary aneurism-needle, and thus encircle the detached portions of bone and soft tissue, each suture passing through into the nasal cavity. It should be noted that there is no tension on the flaps, the threads merely keeping the parts steadily in contact. The amount of pain and constitutional disturbance is much less marked in the patients that have been treated in this way than when the old operation of dissecting up the soft parts from the bone has been resorted to.

"From the liability of the flaps to twist in slightly, and from the thinness of the edge, Sir William Fergusson is careful to pare the sides somewhat obliquely, in order to present wider raw surfaces for adhesion. The sutures, which are kept in much longer than in the ordinary operation, cause no harmful irritation. The lateral clefts become filled up by new bone, which is rapidly thrown out, and tends to keep the parts united firmly in the median line.

"The first case in which the operation was performed was that of a girl aged eighteen, whose soft palate had been closed two years ago, and whose hard palate had been operated on by the old method three times, but unsuccessfully, except that the gap was somewhat lessened in size. Before the operation by the above plan, on Nov. 22, 1873, the cleft was half an inch long and a quarter of an inch wide. Two sutures were introduced, and were removed in seven days. She was discharged at the end of the third week, with firm union of the whole palate in the median line, and the lateral clefts closed.

"The second case was also that of a girl of eighteen. The soft palate was closed three years ago. Since then, she has undergone two operations for the closure of the hard palate, with only partial success, by the old method. The cleft was oblong, three-quarters of an inch long, and three-eighths of an inch wide. At the operation, on Nov. 22d, two sutures were passed. The stitches were removed a fortnight afterwards, when there was a slight chink in the middle. The edges were therefore freshened, and a stitch re-inserted. This was kept in fourteen days, and she was then discharged with a small pin-hole anteriorly.

"The third case was that of a boy aged fifteen, previously successfully operated on for double hare-lip and cleft in the soft palate. One unsuccessful operation, followed by erysipelas, had been performed on the hard palate by the old method. Cleft one inch long and one-third of an inch wide. Operation, as above, on January 24, 1874. Three sutures were passed. Union has taken place, except at the posterior part, where there is a small hole, which is slowly contracting.

"The fourth case is that of a boy of fourteen, whose soft palate was closed in May, 1873. Last November, the hard palate was operated on by the old method, and the cleft somewhat lessened in size. Before operation, on the 7th inst., there was a narrow fissure about half an inch long. The bone in this case was rather difficult to cut. The patient has so far gone on well."

Extirpation of a Sound Kidney.—The *British Medical Journal*, Dec. 20, 1873, contains an abstract of a case reported in the *Wiener Medizinische Wochenschrift*, Nov. 29, 1873:—

"Dr. Brandt, Professor of Surgery in Klausenberg, has placed on record a case in which removal of the sound kidney took place in the human subject. A healthy man, aged 25, was stabbed with a bread-knife in the left hypochondrium. Hæmorrhage to the amount of three or four ounces followed; and, about three or four hours after the accident, a fleshy looking tumor was expelled through the wound by a fit of coughing, attended with severe pain. It was replaced by a bystander, but was soon again driven out by the cough. On his admission into hospital, twenty-four hours after the injury, Dr. Brandt, after a careful examination of the protrusion (of which a careful description is given), arrived at the conclusion that it was the left kidney. Its surface, with the ureter, was torn in some parts, and allowed the escape of a fluid, at first yellowish and transparent, but afterwards sometimes reddish and sometimes turbid yellow. It had an alkaline reaction, a specific gravity of 1042 to 1052, contained a large quantity of albumen and mucin, with some hæmoglobin, traces of urea, and an abundance of alkalies and alkaline earths. It gave a sediment, which, on microscopic examination, was found to consist of pus- and blood-corpuscles, masses of nuclei, mucus-fibrils and fibrinous clots; also epithelium of the kind belonging to the calyces and pelvis of the kidneys. Dr. Brandt arrived at the conclusion that the organ was rendered useless, that its retention endangered life, and that it would be best to remove it. The previous history of the patient did not contra-indicate this; he had had no severe illness, and, though the urine in the bladder contained some albumen, this might be derived from the injured organ. Accordingly, on the fourth day of the injury—a photograph of the patient having been first taken—Dr. Brandt tied the pedicle of the tumor in two parts, by means of a ligature passed through the middle, and cut it away with a knife. This operation was done on June 7th, and on the 23d the patient left the hospital convalescent. No symptoms of uræmia or of peritonitis occurred during the progress of the case. The amount of urine excreted was measured daily up to the 22d. The quantities were the following:—June 7th (half day), 310 *grammes;* 8th (whole day), 923 *grammes;* 9th, 905; 10th, 1425; 11th, 1211; 12th, 992; 13th, 1278; 14th, 1222; 15th, 1348; 16th, 1306; 17th, 1296; 18th, 1324; 19th, 1312; 20th, 1436; 21st, 1498; 22d, 1513 *grammes.* The urine was throughout acid, of specific gravity 1.010 to 1.040, and of normal composition: at first, it was of a reddish yellow color, but afterwards became clear yellow. Dr. Brandt has seen the man several times since the operation. He has no signs of disease of the heart, but complains of a sense of oppression and fatigue, especially in going up stairs, and says that he cannot work as well as before. Dr. Brandt, however, suspects that he may say this to avoid military service."

(To be concluded.)

Bibliographical Notices.

Mind and Body. By ALEXANDER BAIN, LL.D. New York: D. Appleton & Co. 1873. Pp. 200. 12mo.

THIS little volume of the International Scientific Series adds another to the list of books similarly designated which have been noticed in the JOURNAL the past year. This identity of titles in the latest works of Maudsley, Tuke, Brodie and Bain shows what question is uppermost in the world of psychology, and also that the body must take its place as an equal factor with the mind in a complete mental philosophy.

Bain attempts, in the above treatise, to popularize his subject to some extent. He treats the union of mind and body first as a matter of fact, and then shows the correspondence between the size of the brain and mental power; between its complexity of structure and the number of our mental acts; between the modes of action of mind and brain, as requiring proportionate time for transmission of ideas, and nervous currents; between the rise and fall of sensation and feeling, and the physical causes giving rise to them, as change of temperature, light, sound, music, spectacle; and between shock or diffused stimuli and acute or voluminous sensation. Among the laws of alliance are the law of relativity, of diffusion, of pleasure and pain, &c. A continuous impression is not felt. There must be change and contrast to produce consciousness to sensation, thought or feeling. Feeling arises when nervous currents are diffused in the brain, and do not go their rounds in a single line. Pleasure and pain are connected with high and low states of vitality respectively. Stimuli, conflicting with existing nerve currents, or when too intense and sudden, give rise to pain. Stimuli, acting in proper limits and directions, are pleasurable.

The will is related to the brain in three ways, since it depends on the spontaneous or surplus energy, on the directing sense of pleasure and pain, and on the organizing power of education. The intellect has really but three faculties—discrimination, agreement and retentiveness. We know all about an object when we have learned the differences and agreements of all its parts. Retentiveness, or memory, is the most remarkable of the three. The first law of relation seems evidently to be that the renewed feeling occupies the very same parts, and in the same manner as the original. The mechanism of retention is less evident; but we can say in general that "for every act of memory, every exercise of bodily aptitude, every habit, recollection, train of ideas, there is a specific grouping or coördination of sensations and movements, by virtue of specific growths in the cell junctions." By a curious computation, Bain estimates the number of possible mental acquisitions, which, he says, may be stated in tens, but not in hundreds, of thousands. The number of possible nervous connections is, he thinks, equally large, though they sometimes put a limit to our acquirements. Also, certain convolutions being deficient in size, we are wanting in capacity for certain classes of mental acquisitions, and have a bad memory for words, numbers, colors, sounds, &c.

But we cannot follow these interesting speculations further; neither is there space for comment, except to remind the reader that, to a great extent, they *are* speculations. We may, perhaps, conclude from them that mind does not act on body, or body on mind, as we are accustomed to say. Neither is the brain the instrument of the mind, nor mind a *secretion* of the brain. Mind and body, according to Bain, are simply two sides of one phenomenon. All mental facts are also physical, but it is hard to find fit terms to express this correspondence. We cannot, for instance, say whether the whole mind acts in each part of the brain or not, since we cannot think of mental acts in terms of *extension*, though we can in those of *succession*. We may be no nearer than ever to the solution of this enigma of mind and body, but it is worth something to have them properly stated. T. W. F.

Treatment of Nervous and Rheumatic Affections by Static Electricity. By Dr. A. ARTHIUS. Translated from the French by J. H. ETHERIDGE, M.D., Professor of General Therapeutics at Rush Medical College, Chicago. Pp. 144.

IT is difficult to believe that this little book was not written with intent to impose upon the credulous, its errors, both of omission and commission, are so numerous and glaring. It is not wanting in novel statements to be sure, but they are strikingly improbable in character. The first part of the book is given to a meaningless tirade against the use of galvanism, in the course of which we find, for example, the following:—

"Hence it is easy to understand all the disorders which can be produced in an organism as delicate as ours, all the corrosive currents, *saturated with violent acids*, which distroy everything, from flesh even to metals."

It seems strange that a Professor of Therapeutics should be willing to give his sanction to such a book, as he does by translating it, in which task, by the way, he has succeeded so poorly that the sense of many passages is hardly to be made out.

The following quotation (page 62) will give a fair idea of the character of the whole work:—

"We invite the attention of all our *confrères* to the two following axioms:

"1st. When a man is suffering, the electric fluid ceases to pass uniformly in his organism;

"2d. Electricity from the machine is always without effect, or is sensibly modified by the place or seat of any disease whatever. . . . . In a crowd of latent diseases, of equivocal seat, electricity accurately points out the organ affected, and the practitioner has only to demand of science the malady which affects the patient." J. J. P.

The Anatomical, Pathological and Surgical Uses of Chloral. By W. W. KEEN, M.D. (Re-printed from the *Philadelphia Medical Times.)* 1874. Pp. 19.

IN this excellent little essay, Dr. Keen details a number of experiments showing the value of chloral as a preservative and antiseptic. A stillborn fœtus was injected last December with solutions of various strengths, care being taken to limit each to a certain part. The four extremities were injected with solutions of five, ten, twenty and forty grains of chloral to the ounce of water respectively, while the trunk and head were injected through the umbilical cord with an eighty grain solution. The body was left for three months in a room of average temperature, at the end of which time it was found in an excellent state of preservation. The muscles were examined microscopically, and the fibres found perfectly unchanged.

It appears that chloral is an admirable preservative, not only for small specimens, but for entire subjects. The following experiment is certainly remarkable:—

"Experiment X.—A negro died in the city February 18th, and lay exposed during the warm weather we had then till February 28th, when he was brought to my rooms. The cuticle was off over all the chest, which was green and crepitant, and the legs were dropsical. A more unfavorable subject for preservation I have rarely had. Though a large man, I tried chloral, on February 28th, in the same strength and amount as in the last case, viz., gr. xv. to ℥i. March 12th, i. e., twelve days after injection and twenty-two after death, the subject is perfectly preserved. The cuticle elsewhere is adherent, the chest is natural in color, the smell is gone, and the specimen of muscular tissue which I exhibit, though taken from the abdominal walls, the most unfavorable part of the body, is of admirable color and consistence."

Dr. Keen compares chloral as an injection to zinc, arsenic, alcohol, salt and nitre, and thinks it superior to all; we are surprised that he makes no mention of carbolic acid, which is both cheap and efficient. By "pathological uses," Dr. Keen means the properties which chloral possesses of preserv-

ing cellular structures, such as come into the hands of the pathologist. Pus cells were preserved in a five-grain solution for six days, and at the end of that time exhibited the usual reactions on the addition of aniline or acetic acid. Bacteria were killed, even by a solution of the above strength. Dr. Keen suggests that this agent in solution may replace alcohol as a fluid for preserving cabinet specimens, which is "a consummation devoutly to be wished."

The experiments with chloral as a surgical application go to confirm the favorable reports of other observers. It appears to act as a complete deodorant within a very short time, and also as a stimulant, so that what was a foul, sluggish ulcer would become, in from two to three days, a healthy, granulating sore. It is irritant if used in too concentrated a solution. Ten grains to the ounce of water is quite strong enough, and in some cases even this needs dilution. The results of the cases reported were most marked in those with foul, unhealthy, ill-smelling, discharges, which were changed quickly to healthy looking sores, with laudable pus. The amount of discharge appeared to be diminished, but there was, seemingly, no increased rapidity of healing other than such as resulted from changing an unhealthy sore, which was stationary, or even enlarging, to a healthy one. The mucous membranes, as would be expected, were found to be more sensitive to the irritant properties of chloral than the skin.

Cases are reported of caries of the tibia, psoas abscess, and of foul ulcers, in which the offensive discharges were rendered comparatively odorless by the use of a ten-grain solution.

A case of cauliflower excrescence of the os uteri, with large hæmorrhage and great fœtor, had been treated with various disinfectants for thirteen months. A solution of chloral, five grains to the ounce, used as an injection, lessened the discharge, destroyed its odor, and relieved pain, so that the patient was able to walk about.

BOOKS AND PAMPHLETS RECEIVED.

Rupture of the Perinæum; its Causes and Cure. By A. K. Gardner, M.D. Published in *Medical Union*. 1874. Pp. 12.

Remarks on Double Monsters. By Edward S. Dunster, M.D. 1874. Pp. 13.

The Union University Catalogue. Albany. 1874. Pp. 141.

Local Anæsthesia by Sulphide of Carbon.—Dr. Ch. Bernard (*Gazette Méd. de l'Algérie*, No. 3, 1874) mentions the case of an Arab of the plain of Milidja, wounded in the plantar part of the left foot, near the heel, with glass, which penetrated. Six grammes of sulphide of carbon were poured drop by drop on the part, and made to evaporate quickly. In a minute's time the wound was enlarged, and the extraction of a piece of glass two centimetres long was made, without the Arab experiencing any pain.

Another Arab had a large carbuncle on the left of the abdomen. Dr. C. Bernard made use of ten grammes of sulphide of carbon by the spray apparatus, and then made six deep incisions, without any pain being felt.

Another medical man removed his wife's toe-nail, after Dr. Bernard had produced local anæsthesia, by dropping gradually six grammes of sulphide of carbon on the part. The operation lasted two minutes, but gave no pain.

This kind of anæsthesia is very simple and very rapid; it is preferable to ether, chloroform or refrigerants. There is no danger to be apprehended, and no disagreeableness when the sulphide is prepared pure. At first, a sensation of great cold is felt, which disappears, and in two or three minutes the part is insensible. In general, the patient has no other sensation than that of fear.

Richardson's apparatus is useful when a large tumor is to be rendered insensible; but it uses up too much of the fluid.—*British Medical Journal.*

Reports of Medical Societies.

The eighty-fourth meeting of the New Hampshire Medical Society was held at Concord, N. H., on Tuesday, June 9th, the President, Dr. J. L. Swett, of Newport, in the chair.

At 12 o'clock, M., the President, according to custom, gave an address. It was very able and interesting, occupied mostly with sanitary measures and local matters.

This was followed by the Annual Oration, by Dr. Dinsmore, of Francistown. Its subject was Quackery; but it referred chiefly to irregular and unbecoming practices on the part of those in the profession. It received great attention and frequent applause.

The Society then dined together at the Eagle Hotel, and, under the guidance of Dr. A. H. Crosby, of Concord, had a very pleasant time, with toasts and speeches appropriate to the occasion.

At the afternoon and evening sessions, a number of elaborate and interesting reports were made, among the more noticeable of which were that on Surgery, by Dr. C. P. Gage, of Concord, that on Climatology, by Dr. J. R. Ham, of Dover, that on Gynæcology, by Dr. J. F. Hall, of Portsmouth, and that on Necrology, by Dr. W. G. Carter, of Concord. In the last of these reports was a fitting eulogium of Dr. Dixi Crosby, the eminent lecturer, teacher and practitioner, of whom the whole State is so justly proud. Later, a series of resolutions of unusual elegance of diction and elevated sentiment were proposed, and, of course, unanimously adopted.

The Society met on Wednesday morning, at 8 o'clock; discussed several matters, and elected the following officers for the ensuing year:

President.—Nahum Wright, of Gilmanton.

Vice President.—S. M. Whipple, of New London.

Secretary.—Granville P. Conn, of Concord.

Treasurer.—Thomas Wheat, of Manchester.

The semi-annual meeting is to take place in September, at the Isles of Shoals.

The place and time of holding the next annual meeting was fixed at Concord for the third Tuesday of June, 1875.

The meeting was a pleasant, harmonious and profitable one to the members.

Photographing the Pulsations of the Heart.—The apparatus for this novel process, the discovery of Dr. Ozanam, of Paris, consists of a small, thin India-rubber bladder, connected with a short glass cylindrical tube. The bladder and a portion of the glass tube is filled with quicksilver, and the instrument is then applied to the chest of the individual to be examined, the bladder being placed opposite the heart's apex. By this contrivance, it will be apparent that each pulsation of the heart must be indicated by a corresponding rise and fall of the quicksilver in the tube, and, by the aid of a camera, it is a simple matter to indicate these changes of the column upon sensitive strips of paper. This ribbon of paper is unrolled, at a regular rate, from an axis worked by a simple mechanism, and thus is transmitted to paper an exact expression of rate of pulsation of the heart, as well as the regularity and force of its action.

Boston Medical and Surgical Journal.

Boston: Thursday, June 11, 1874.

We have been assailed in the May number of the *Nashville Journal of Medicine and Surgery* with a torrent of abuse such as, happily for the credit of the profession, is rarely seen in medical literature.

Our offence was to review* unfavorably the reprint of a former editorial in that Journal bearing the classical title of "Katy did and Katy didn't," and being "an inquiry concerning priority in the ligation of the internal carotid artery," by Dr. Wm. K. Bowling, the senior editor. The tone adopted by Dr. Bowling in his late attack is so coarse that we must decline to engage in any discussion, and we should not even allude to the matter did we not think it due to ourselves to reply to one of the charges made against us. We concluded our review by quoting a high-flown passage about "medical publications . . . . . from that which humbly trickles down the mountain side, mirroring the daisy, and offering drink to the bonnie lark, to that which rolls its interminable length along the lowland plain, refreshing cities and villages and hamlets, embosoming half the sky," &c. &c., and we alluded to it as "fragrant with the rhetoric of a southern clime." It cannot be denied that a great deal of this kind of writing is done at the South, but we laughed at it because it was silly, not because it was southern, and we should have done so as heartily had it come from any other quarter. The charge that we took the position that we did from any sectional or political jealousy is entirely without foundation, as anyone may see who will refer to our pages for several years back. We have written no unfriendly word of the South, and we have had no unfriendly thought.

With regard to the other points, we can only say that when Dr. Bowling shall see fit to reply to our review in the language used among gentlemen and in respectable literature, we shall be happy to give his reply due consideration.

It is satisfactory to learn from the report of the Massachusetts Charitable Eye and Ear Infirmary that this useful institution is relieved, by appropriation from the State and by legacies, from the straitened circumstances which its treasurer reported at the end of the previous year, and that the possible contraction of its operations then suggested may be avoided. The total number of patients the past year was 6,283, a slight increase over the number of the year before, though the number of patients treated in the house was somewhat less.

* Vide Boston Medical and Surgical Journal, April 30th ult.

The statistics of sixty-six cataract operations done by the surgeons, all but two by the method of von Graefe, are arranged by Dr. H. Derby. In fifty-nine of these, comprising the senile cataracts, the duration of treatment, amount of vision obtained (by Snellen's test), and other particulars, are given. It is to be hoped the time is not distant when the course of the Infirmary in this respect will be followed by other Institutions. Notes on some of the more interesting cases of aural disease are added by Dr. C. J. Blake.

THE following poem was read at the Annual Meeting of the Massachusetts Medical Society June 3, 1874, by Dr. Thomas N. Stone, of Wellfleet.

Brothers, amid the flowers of June,
We meet again;
One mile-stone more our foot has touched
On life's broad plain.

Our Alma Mater, matron dear,
Welcomes each son;
And shares, with all a mother's joy,
Each victory won.

Not *all* are here. Some duty keeps
By beds of pain;
Some ne'er, within our festal hall,
Will meet again.

No night-bell, harsh, disturbs them now
'Mid slumbers deep;
The Master, to His servants worn,
Has given sleep.

Now, as we meet on this bright day,
In festal hall,
This be our toast, with hearty hip,
We're brothers, all.

One day within each circling year
We'll greet with joy;
And, though our locks are scant and gray,
We'll play the boy.

* * * * * * * * *

"Again we rest, as well we need,"
I said, last week, to my old steed.
I always talk in a brotherly way
To that same steed, so staid and gray;
For, though small faith in Darwin's creed,
So much of good lies in that steed,
It may outlive the stroke of death,
And show some soul beyond mere breath.

My good gray heard with ears attent,
As if she knew what each word meant;
She smiled in a sad and anxious way
As to the cars I turned away,
As if she would in warning say,
"Good master of thyself take heed,
No love like mine has iron steed."

I tread your streets in country style,
O'er paths of brick, 'neath granite pile,
To stores where health is sold;
To learn if, perchance, some chemistry rare
Had added strength to God's own air
Our fathers breathed of old.

As I go prowling round, no doubt
Clerks think that Rusticus is out,
Or some poor country cuss,
Whose head no beaver ever pressed,
Whose hand no kid glove e'er caressed,
Who never rode in a buss.

As 'fore some label long I stop,
I scratch my pate till hay seeds drop
From out my tangled hair.
Here lacto-peptine, thund'ring word,
Does every power of Nature hoard;
No mortal need despair.

Pancreatine our lacteals play
So gently on our festal day,
No colic need we fear.
No longer now, for costive ills,
We need resort to nauseous pills—
The *prima via's* clear.

This nervous force of Brown-Séquard
We need no longer now regard;
'Tis furnished by strychnine.
If lungs and liver both are gone,
We'll make the patient still live on
By cod oil *et* pepsin.

This fruit is from the tree of life
Old Adam lost through foolish strife,
And Eve forgot to steal.
Where's Holmes, who says there is no cure
But poppy-leaves and quinine pure,
Our mortal ills to heal?

If death should travel now our vale
To seize consumption's victims pale,
We've got a dose divine.
I tried it on my skeleton,
And soon upon each naked bone
Muscles began to shine.

Its cod oil greased each stiffened joint,
And rounded well each angle's point,
While phosphorus made his brain.
Beef gave the food he'd wanted long,
Its wine and iron made him strong—
The rascal broke his chain!

He took my cloak from off the wall,
My beaver from the outer hall,
And then he took his way.
While I, confounded by his brass,
Just stepped aside to let him pass,
Nor dared I say him nay.

A wand'ring Jew he walks the earth.
For where's the spot that gave him birth,

His new brain can't divine.
If such an one, in daily round,
By any country brother's found,
Please take that hat of mine.

THE *British Medical Journal*, May 9, 1874, contains an editorial on the Action of Modern Bullets on the Animal Body, to which we are indebted for the following facts:—

During the recent Franco-German war, when the combatants fought at short distances, the frequency and severity of the injuries of bones, and the size of the apertures of exit, led to the supposition that explosive bullets were used by the French. The researches of Drs. Busch and Küster have shown that the supposition was unfounded, and that the injuries resulted from the use of bullets made of soft lead.

In making the experiments which led to the conclusion just mentioned, a large target was placed behind animals, both living and dead, so as to enable the condition of the bullets to be observed after their passage through the body. The arms used were a sporting rifle, the needle-gun, Chassepot, Manser and Henry-Martini rifle. The general results of the investigation were as follows:—

There is no essential difference in the action of bullets on the living and on the dead body; so that the statement which is made in text-books is erroneous—that gun-shot wounds are more extensive in the living body than in the dead, and that this affords a means of determining whether the injury has been inflicted during life or after death.

The extent of the destruction is in inverse ratio to the distance, and in direct relation with the initial velocity of the bullet.

The destruction of the tissues is produced by the lead becoming heated by collision against a solid substance, and consequently broken up, but without being melted. The bullet is mechanically divided, leaving the finest particles of lead in the recesses of the wound, while fragments of various sizes pass out along with pieces of shattered bone. Dr. Busch has shown that lead loses its cohesion in proportion as it is heated. If two bullets, one cold and the other heated, be allowed to fall on a stone from a height of six feet, no impression will be made on the first, while the second will be distinctly flattened. The heating of the ball takes place in accordance with the law, that whenever it meets with resistance a part of the force is changed into heat. The manner in which the injury is produced in the animal body is easily explained. The bullet shatters the first bony lamellæ with which it comes in contact, becomes heated, and is consequently broken into several fragments against the projecting portions and angles of the bone. The wounds made from short distances by the Chassepot and Manser, which have the greatest initial velocity, were frightful.

It was found that such injuries as have been described were produced only by bullets made of soft lead. Bullets made of hard lead are used with only one of the modern weapons—the English Henry-Martini rifle. The hardness is produced by amalgamation of the lead with tin in the proportion of 12 to 1. The initial velocity of this rifle is nearly as great as that of the Manser, and yet the wound produced by it is very much smaller. The apertures of entrance and exit are rounded, and if the edge of a rib is hit, the loss of bone forms the segment of a circle corresponding to the circumference of the ball.

From the statements here made, it is evident that the opinions previously entertained as to the action of shot have been shaken by the introduction of modern weapons, and require reform. In future, in judging of the severity of an injury, it will be important to ascertain at what distance, and from what weapon the shot was discharged, and whether it was of hard or of soft lead. The penetration of the bones of an extremity by a Chassepot or Manser bullet at short distances will, in nearly all cases, demand amputation.

Dr. Küster refers to the bearings of the question on the interests of hu-

manity. The use of explosive bullets of small calibre is forbidden by international agreement; but if it be shown that bullets of soft lead, at least at short distances, act just like explosive bullets, and that a close combat with such bullets can be nothing but a horrible butchery, the members of the Geneva Convention must use every effort to obtain an international verdict against soft lead bullets.

The Hospitals.*

BOSTON CITY HOSPITAL.

(Friday, June 12.)

Crushed finger, kicked by a horse. Hydrocele. Necrosis of metatarsus and third toe. Fatty tumor. Cyst beneath the sterno-mastoid. Iridectomy.

During the week, by Dr. Williams, secondary operation for cataract. The child, 4 years of age, had had soft cataract removed from both eyes. Since then, the capsules had become thickened and obstructed vision; these were removed by fine forceps introduced through the anterior chamber.

Divergent, following an operation for convergent, strabismus. The little girl's eye had been operated upon, some years ago, by another physician. The internal rectus had failed to unite, and the eye is turned considerably out. An incision being made in the conjunctiva near the inner side of the cornea, the internal rectus was found after some trouble, dissected up and fastened near the cornea by sutures, thus drawing the eye inwards. Then the external rectus was thoroughly divided, and the edges of the conjuctiva brought together by sutures.

W. P. BOLLES.

Correspondence.

ELECTROLYSIS OF UTERINE TUMORS.

MESSRS. EDITORS,—In your issue of Jan. 29th of this year, I find an article from the pen of Dr. Kimball, of Lowell, entitled "Cases of Uterine Fibroids treated by Electrolysis," which contains several statements relative to the agent employed, involving inaccuracy, and calculated, in my opinion, to do more harm than good. As regards the Doctor's history, diagnosis and pathology of uterine fibroids, there is nothing to say, except that they are marked by his usual sagacious research and extended experience. When, however, he speaks of treating them by electrolysis, at the same time employing a galvano-cautery battery of no small power, and, in place of removing his tumors by the slow process of chemical decomposition and absorption, acts directly upon the morbid mass by means of the *intense heat* evolved from "thirteen and a half square feet of surface," there is such an evident misapprehension of terms that, as a professed electro-therapeutist, I must "rise to explain." The difference between electrolysis and galvano-cautery lies mainly in the words above written, viz.: in the one case, *slow* resolution of a substance, by means of an *intensity* galvanic current passed through it, into its component gases, acids and bases; the former usually passing off and the latter remaining to be carried into the circulation by the absorbents, thus removing the mass without any systemic shock or subsequent constitutional disturbance; in the other, *rapid* destruction of tissue by means of *intense heat*, either applied directly to the surface by means of the various instruments devised for the purpose, or, as the Doctor has used it, internally by electrodes made to pierce nearly to the centre of the mass to be removed. In the one case, there is little general pain, no local suffering and no subsequent prostration; in the other, all these unfavorable symptoms to a marked degree. That the Doctor's results were good, I am glad to note; that they might have been equally

* The report of operations at the Massachusetts General Hospital is unavoidably postponed. It will appear in the next number.

valuable with much smaller cost of suffering to his patients, my own experience in the same line bears me out in asserting.

The form of battery almost exclusively used in both continents for electrolytic operations, is one wherein the number of elements is large, and their separate size small; such as the 32-cell instrument of the Galvano-Faradic Company. In this apparatus, the whole *quantity* of electricity generated comes from the first two pairs; the remainder, or so many of them as may be in battery, only acting as intensifiers, or drivers of the current so obtained. It will be seen that the *intensity* of this current may be altered at will, an indispensable qualification in these operations where more power than is absolutely needed for chemical decomposition should not be employed, and where an expert operator will rarely produce pain and *never* subsequent prostration.

Again, actual experience teaches that prolonged external use of an electrolytic current may be productive of the same results as a shorter term of treatment subcutaneously.

That the galvanic flow does actually traverse bones as well as soft tissues, is not longer necessary to demonstrate; and, conceding this, would it not seem better to avoid such "profound impression" as the Doctor made upon his first case, by essaying, at least, the milder plan of external application?

But it is not with the Doctor's mode of applying the current that I join issue, but with his misapplication of terms.

It seems as if, in place of electrolysis, he has made use of galvano-cautery, which his powerful battery was certainly competent to supply.

Thirteen and a half square feet of zinc-carbon surface, immersed in a cell containing the usual bichromate solution, would furnish a *quantity* current sufficient to destroy all organic tissue between its poles, they being, as the Doctor states, not more than an inch or so apart.

It is in no captious spirit, Messrs. Editors, that I venture upon criticism of Dr. Kimball's operations; it is simply that the profession at large may not be misled by an incorrect use of terms, and believe that an electrolytic operation is as formidable as an ovariotomy, when its successful performance may really be attained without fear or trembling on the part of either surgeon or patient. Further, while the specialty of electro-therapeutics is yet so young, it seems the more important to attain, in its technical phraseology, as much correctness as time and opportunity will permit, and it is to this end alone that I write.

The more attention that general practitioners can be induced to give to a form of treatment which is at present engrossing the attention of many leading minds in the profession, the less likely will they be to use the idiotic expression of a medical man of my own city, who recently declared electricity to be a great humbug.

In conclusion, permit me to cite a case which occurred in my own practice, where a result quite equal to Dr. Kimball's was obtained by external electrolyzation alone. In November of 1873, Mrs. B. presented herself at my office for examination and treatment. Patient was a strong woman, had passed the grand climacteric, and had been operated upon a year previously for mammary scirrhus of the left side. Cancerous nodules had developed themselves along the scar of the operation, and the breast was the seat of a second scirrhus the size of a hen's egg. Smaller hard tumors existed in both axillæ, and all lymphatic glands were enlarged and hardened. Countenance cheerful, and patient feeling generally well. I determined to try external electrolysis, and received the assent of the lady, with the proviso that in case of failure I would use the needles. The 32-cell battery, above alluded to, was used in this and all my other operations of this class. A large sponge-covered carbon point was placed under the gland and a smaller one pressed directly down upon the mass from above, both saturated with salt water, and a current employed of six cells, gradually increasing by resistances to ten, when pain was felt, and therefore the number was reduced to eight, when the lady said the sensation was one of pleasant warmth. The *séance* was continued fifteen minutes, with frequent voltaic alternatives or reversals of current.

These sittings were repeated every day for three months, when, to my delight, the tumor was reduced to the size of a boy's marble, and the nodules along the track of the old scar were gone.

To this time—four months since the date of the last application—the tumor shows no signs of increase, and the case is considered cured—so far as said tumor is concerned. It is true that a scirrhus bears little relation to an uterine fibroid; but, as it is usually considered as difficult to remove, and infinitely more liable to recur, it would seem that the cases are somewhat parallel, so far, at least, as the electrolytic effect goes.

Very respectfully, WM. F. HUTCHINSON, M.D.

175 *Broad St., Providence, R. I., June* 9, 1874.

NURSING AS AN ART.

MESSRS. EDITORS,—The longer we live and practise the less faith we have in *mere medicine*, and the more curious do the old rules appear which point to medication and say nothing of diet, manner of living, pure air or *nursing*. Hygiene and medicine have been growing more and more into accord from year to year, and now, more than ever, the science of nursing has made to itself a place. There is nothing that comes home to a doctor like it.

There are incidents of practice that burn themselves into our souls. A patient was seriously ill with fever; no good nurse was to be had. The family were much worn out, and a young man, a friend, was engaged to sit up at night. He had definite instructions; there was not very much to be done, but the patient was to be kept warm, and to be wakened from his drowsy stupor at certain times, to take nourishment. His life depended upon his being sustained.

With the best will in the world, toward morning the poor fellow fell asleep. He was not accustomed to watching, he had done his day's work, and was weary and exhausted. He woke with a start in the dull cold of the morning, to find his charge cold and insensible, and, though not dying, he had lost so much ground that he never could be revived. The patient died, and the doctor and the watcher never forgot it. A good nurse might have saved a valuable life.

As a rule, women make the best nurses, or, rather, more of them have a natural aptitude for the work. A few men must stand superior for skill and strength, but the main supply of nurses must be from the ranks of women. Once it was left to nature, taste, necessity or, let us say, chance; now, with proper education, nursing will be an honored profession.

We have begun with training schools; all good work moves slowly. They will increase, and we shall have more and more *aids* in the field, in the shape of intelligent, skilled nurses. Then will the physician no longer leave a patient with doubt as to the result of the next visit.

The best training is teaching and experience; as the best taught surgeon is no real surgeon without experience, so with the nurse. Yet much may be learned.

Florence Nightingale wrote a little book, "Notes upon Nursing." It has done a good work. A friend of Miss Nightingale, Miss Florence Lees, who has recently visited this country, has written a "Handbook," having reference principally to hospital nursing, but full of instruction to any one who has the care of the sick. The book contains the most minute instructions with regard to the care of the sick, of their rooms and beds, with all the preparations and arrangements for operations, with ideas as to cleanliness, diet and ventilation, that vexed question which puzzles the wisest. As a substitute for training, this manual is invaluable, and even to the educated it would be useful for reference. Eight years of experience in hospitals and schools, in the camp before Metz, and in Germany during the war, has given the writer rare opportunities for practical knowledge.

Pending the time when the nurse shall be the educated ally of the physician, these handbooks are invaluable. A. B.

Medical Miscellany.

Dr. Brown-Sequard has sailed for Europe.

Death of a Centenarian.—A woman died in Berlin, on the 8th of April, at the advanced age of 103 years and 9 months.

Foot and Mouth Disease has broken out in Lincolnshire and one or two other counties in England.

The resolutions on the late Dr. Dixi Crosby, read before and adopted by the New Hampshire Medical Society, were prepared by Albert Smith, M.D., LL.D., of Peterborough, N. H.

Prof. Eugen Schneider died at Munich on the 9th of April. He was born in 1796, and occupied the chair of Anatomy in the University of that city from the year 1826 to 1854.

London.—According to the report of the Bureau of Statistics for 1873, the population of London at the close of that year amounted to 3,356,073 persons. The total number of births during the year was 121,200; the number of deaths 76,634.

The attention of those of our readers who are members of the Massachusetts Medical Society is directed to the advertisement in relation to the proposed Medical Register of Massachusetts. The Register is well advanced towards completion, and it is very essential that the compiler's circulars should have prompt response so that the work may do full credit to the profession of the State, as well as to the enterprising author of the project.

Stockholm.—Smallpox and typhoid fever have prevailed extensively in this city. During the week ending April 10th, 185 new cases of smallpox were reported, with 25 deaths, and in the previous week 138 new cases with 37 deaths. Total number of cases since November, 3,000; total number of deaths during that period, 618.

Rabies Mephitica.—A writer in the *American Journal of Science and Arts* asserts that the bite of the *Mephitis Mephitica*, or common skunk, is very frequently followed by symptoms very similar to *rabies canina*, ending in convulsions and death. The period of incubation lasts from a few days to two years. Ten cases of death from the bite of this animal are appended, all occurring in the State of Kansas.

International Medical Congress.—The organization of an International Medical Congress at Brussels, in 1875, is being carried out with great activity. The president is to be Dr. Vleminckx, President of the Academy of Medicine, who has already presided over other scientific congresses with tact and authority. The Belgian government has promised its coöperation, but it belongs specially to the members of the medical profession to set their shoulders to the wheel, in order to make the scheme work.—*London Medical Record.*

Japan.—The details of the destruction, by fire, of the French military Hospital at Yokohama (L'Hôpital Jourès) have been received. The conflagration occurred upon the 2d of April, and was, fortunately, unattended by any loss of life, the patients having been all hastily removed, first to the neighboring houses, and, later, to the General Hospital.

New Apparatus for applying Extension to the Arm.—Dr. K. Gussenbauer has devised a simple and ingenious apparatus, by the aid of which the principle of the weight and pulley is introduced to apply extension in cases of fracture of the upper extremity of the humerus. The apparatus has been employed with success for two years in the *clinique* of Prof. Billroth, the patients being allowed to go about as usual during the course of the treatment.

PRESERVATION OF MEAT.—M. Poggiale described to the Academy of Medicine, at a recent meeting, the process followed by M. Tellier, in his establishment at Auteuil, near Paris, for the preservation of meat. The vessels or chambers in which the meat is enclosed are kept cool by the alternate vaporization and condensation of methylic ether. Specimens of meat and game that had been kept in this way for weeks were examined, and found to be in good preservation. The game, however, had lost somewhat of its flavor.—*Medical and Surgical Reporter.*

A DISLOCATED LIVER MISTAKEN FOR AN OVARIAN TUMOR.—The patient, an unmarried woman, aged twenty-four years, was the subject of a large and painful abdominal tumor, of eight months' growth, for the relief of which the operation of ovariotomy was decided upon. Upon opening the abdominal cavity, the ovary was found to be healthy, the swelling being due to an enlarged liver. This organ was free and movable, pressing upon and displacing the uterus, bladder, rectum, and other abdominal organs.—*The Richmond and Louisville Medical Journal.*

SINGULAR DEATH FROM BLOOD-POISONING.—Dr. Weigel, a surgeon connected with the military hospital at Münster, was recently made dangerously ill, the result of inoculation with morbid matter absorbed at an autopsy through a slight wound in his hand. In performing an operation for his relief, another surgeon, Dr. Kruse, chanced to make a slight incision in his finger, by which means he himself became inoculated, and, after severe suffering, died.

ANTE-MORTEM CREMATION.—A young lady had been ill some time, and her sapient advisers decided she had Bright's disease, for which they prescribed a *turpentine vapor bath.* The bath was administered under the supervision of two irregular practitioners in the following manner:—The patient having had the clothing removed, and been enveloped in blankets, was placed upon a chair with a hole in the seat. Beneath her was suspended a tin vessel containing the turpentine, and under it was placed a spirit lamp. The chair was covered with blankets and the lamp lighted. In a few minutes, the patient sprang from the chair, exclaiming that she was on fire; simultaneously an explosion occurred, disseminating the ignited fluid about the chamber. The young lady was terribly burned in the regions of the nates and thighs. She suffered excruciating agony during the three succeeding days, when death relieved her. The authors of her sufferings stated that they regretted exceedingly the unfortunate accident; that it was an experiment they had never before tried, but from which they had hoped good results; that the small quantity of vapor, with which she had come in contact, had *already greatly benefited her kidneys;* and that the accident did not materially affect the result, since her case was hopeless.—*Medical and Surgical Reporter.*

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and Towns for the week ending June 6,* 1874.

Boston, 117; Worcester, 11; Lowell, 18; Milford, 2; Cambridge, 30; Salem, 10; Lawrence, 13; Springfield, 5; Lynn, 9; Fitchburg, 1; Newburyport, 1; Somerville, 9; Fall River, 14; Haverhill, 6; Holyoke, 9. Total, 255.

Prevalent Diseases.—Consumption, 40; pneumonia, 16; scarlet fever, 10; whooping cough, 10; typhoid fever, 8.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 13th, 108. Males, 58; females, 50. Accident, 2; abscess, 1; apoplexy, 2; anæmia, 1; aphthæ, 2; disease of the bowels, 1; bronchitis, 4; inflammation of the brain, 3; congestion of the brain, 1; disease of the brain, 2; cancer, 1; cerebro-spinal meningitis, 1; cholera infantum, 1; cholera morbus, 2; consumption, 24; convulsions, 2; debility, 1; diarrhœa, 2; dropsy of the brain, 1; drowned, 1; scarlet fever, 2; typhoid fever, 2; gastritis, 1; disease of the heart, 9; malformation of the heart, 1; jaundice, 1; disease of the kidneys, 3; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 14; marasmus, 6; measles, 1; old age, 2; paralysis, 1; pleurisy, 1; premature birth, 2; puerperal disease, 3; disease of the spine, 1.

Under 5 years of age, 34; between 5 and 20 years, 7; between 20 and 40 years, 34; between 40 and 60 years, 19; over 60 years, 14. Born in the United States, 58; Ireland, 35; other places, 15.

THE

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Original Communications.

SOME CASES OF CHRONIC ENTROPION AND TRICHIASIS OF THE UPPER LID, RESULTING FROM GRANULAR OPHTHALMIA.*

By G. HAY, M.D., Boston.

THIS affection presents itself very frequently at charitable Institutions for the treatment of eye-diseases, though comparatively seldom in private practice. Besides the disease of the conjunctiva, with its roughness and shrinking, there is also a slight incurving of the edge of the lid, and consequent change in the position of the lashes, which, instead of being directed forward, away from the cornea, come to rest upon or press against it; occasionally, also, the palpebral aperture is diminished. Moreover, owing to the mechanical irritation of the above-mentioned changes, and, perhaps, sometimes, to an extension of the conjunctival disease to the cornea, the latter often becomes vascular, turbid or opaque, and ulcerated.

The shrinking of the conjunctiva may, of course, be aggravated by excessive cauterization, and, as this is sometimes the case, it is better to err on the side of too mild applications, rather than of the opposite. The general opinion, however, is that a certain degree of shrinking of the conjunctiva and consequent incurving of the edge of the lid is due to the natural course of the disease, although, even on this point, a different opinion is held by Mannhardt,† who observed in the East very many cases of the injurious effect of bad treatment.

This combination of diseased changes, attended by more or less pain and discomfort and serious impairment of sight, is sometimes beyond the power of the medical man to cure. The active disease of the conjunctiva is often very difficult to control, and, even after the active inflammation is over, the shrunken and cicatrized condition in which the lining membrane of the lids may be left, is of itself, in many instances, a source of irritation, partly by impeding the motion of the eyeball, and partly by pressure upon it, and this altered conjunctiva cannot be restored to its normal state.

To give some relief under these circumstances by remedying, to a certain degree, the injurious condition of the edge of the lid, many operations have been proposed. In the first place, it may be stated that, in the cases we are here considering, cases of chronic entropion and trichiasis, resulting from granular ophthalmia, the excision of a piece of skin from the lid (in the case of the upper lid), while having but little effect to remedy the entropion, has an injurious effect by

* Read before the Boston Society for Medical Observation.

† Archiv für Ophthalmologie, xiv. 3, page 41.

shortening the lid. In case of the lower lid, where the tarsus is smaller, Walton's operation of removing a strip of skin and muscle next the edge is sometimes useful.

Until within a few years, I had generally preferred the removing of the cilia by Flarer's operation, by taking away from the edge of the lid its anterior layer containing the bulbs (this edge having previously been split into two layers, the anterior containing the bulbs). This operation often gives considerable relief, but is open to the objection that it is not directed principally against the incurving of the edge of the lid, that it is sometimes followed by an uneven cicatrix of this edge, and that it sacrifices the lashes.

Another operation is that known as Arlt's modification of Jaesche's operation. This involves removing a large piece of skin from the lid, which is objectionable as endangering the shortening of the lid, and also requires dividing the edge of the lid into an anterior and posterior layer, so that all the bulbs of the cilia may be contained in the anterior layer (which is to be transplanted upwards on the lid) and none in the posterior. Such a section is by no means easy to make when the disease is advanced, since then the cilia emerge close to the free edge of the inner surface of the lid, and we may easily leave some of the bulbs in the posterior layer of the divided lid-edge, or if the section is not smooth we may get subsequently an injurious cicatrix of the edge of the lid.

Graefe's modification of this, which consists in sliding up on the lid the anterior layer of the edge which contains the ciliary bulbs, without necessarily removing a piece of the skin, presents objections similar to those already mentioned.

Another operation, acting more directly to cure the incurving of the edge of the lid, and called "grooving the fibro-cartilage," was described by Mr. Streatfeild in 1858, in vol. i. of the Ophthalmic Hospital Reports. Ten years later, in 1868, a similar operation was strongly recommended by Mannhardt, in the *Archiv für Ophthalmologie*, vol. xiv., part 3, and there referred to as the operation of Snellen.

The essential feature of these operations appears to be the removing from the tarsus along its whole length a strip of its substance; the strip to be somewhat wedge-shaped, with its base towards the skin, and the opposite edge or apex towards the conjunctiva, so that when the walls of the gap (thus made throughout the length of the tarsus) grow together, the inverted edge of the lid may be drawn away from the eyeball. The strip of tarsus is removed through a cut in the skin, made along the edge of the lid, and distant about one or one and a half lines from it. The ciliary bulbs are to be avoided. It is desirable, also, to avoid incising the conjunctiva, and especially not to excise any of it.

According to Mannhardt, two or three sutures may be introduced, each passing, at the upper part, through the substance of the tarsus itself, at the lip of the groove, and below, not through the tarsal substance, but between this latter and the skin, the suture to emerge a little above the emergence of the cilia. In a recent description of Snellen's operation, in the *Annales d'Oculistique* for March and April, 1873, some minute directions are given for the sutures. But Streatfeild's method omits sutures. According to Streatfeild's method, the strip of skin and muscle corresponding to the excised wedge of tarsal substance may also be excised.

The following few notes of several cases treated at the Massachusetts Charitable Eye and Ear Infirmary, by a method similar to that of Snellen, have given me the impression that the method of excision of a strip of the tarsus is, in general, preferable to the removal of the lashes, or to Arlt's modification of Jaesche's operation. The notes are, unfortunately, too scanty to illustrate fully the advantage of the method, but they will show some of the accidents to which the operation is liable, and, as of use in this respect, I beg leave to offer them to the Society.

Case I.—A woman, American, aged 26, dressmaker, suffering from chronic entropion and trichiasis of both eyes, was admitted to the Infirmary 1872, Feb. 22. As she was quite averse to having the lashes removed, it was determined to try grooving the tarsus, by a method similar to that of Snellen; this was accordingly done February 27th, under ether, on the upper lid of the *right* eye.

One of the tarsal sutures was removed March 1st, and the other March 3d, and the patient was discharged March 6th, very much improved.

June 14th.—Grooving of the tarsus, as above, was done on the upper lid of the other eye, the left. Also, each lower lid operated on by removing a narrow strip of skin along its edge.

Aug. 24th.—Another secondary operation for trichiasis on the *left* eye, but the record does not state what. About a year later, 1873, Aug. 13th, a few incurved lashes removed from inner end of upper lid of one eye.

That this last operation should have been required is in accordance with the experience that it is more difficult to rectify the position of the lashes at the ends of a lid than of those at its middle. On the whole, the patient was improved by the numerous operations.

Case II., 1871, Sept. 30th.—Mr. ——, Armenian, aged about 26 years, consulted me for his eyes, both of which were affected with chronic, granular ophthalmia; there was also an ulcer of the left cornea. The patient was seen by me a few times at intervals till March 18, 1872, when the eyes were somewhat improved. After more than a year, he again called on me, 1873, May 28. The left eye showed decided distichiasis of cilia of upper lid, and some alteration in the tarsus. The right showed partial distichiasis.

1873, June 2.—Patient entered the Infirmary, and the next day each upper lid was operated on, under ether, by removing a narrow strip of tarsal substance lengthwise from the front of the tarsus along its whole length. The patient left the Infirmary June 9th. On June 20th, the middle third of the lashes of the upper lid of the right eye were wanting, and a somewhat similar appearance on the left.

Aug. 12th.—A few scattered lashes from the middle third of each upper lid scrape the cornea. These were drawn out.

1874, Feb. 10.—The right eye shows, at the middle of the edge of the upper lid, a few very fine cilia. The left has slight cloudiness and unevenness of surface of cornea. Conjunctivæ of upper lids high-colored and somewhat shrunken, more so in the left.

This case, in which I had decidedly advised the operation, was not altogether satisfactory, for, though in the main the position of the edges of the lids and of the cilia was improved, yet, in addition to losing certain of the cilia, the preservation of which I had expected,

there appeared some degenerated or dwarfed cilia, with faulty position. This was probably due, either to cutting directly into, or too near to some of the bulbs. At the same time, while bearing in mind the propriety of avoiding the roots of the lashes, it is also to be remembered that the nearer to them the lower incision into the tarsus is, the larger can be the strip of tarsus excised.

Case III., 1873, Aug. 7.—A woman, American, aged 62, was admitted to the Infirmary with incurving of the temporal half of each upper lid, and with some trichiasis.

Aug. 8th.—Under ether, after dividing the outer canthus, the operation of grooving the tarsus, by a method similar to that of Snellen, was undertaken on the *right* upper lid, but was found to be difficult, owing, perhaps, to the shrunken condition of the conjunctiva. This was accidentally incised, and, possibly, a small bit of it excised.

On account of the difficulty met with in doing the grooving of the tarsus on the right, it was thought better to try on the other eye, together with division of the external canthus, the removal from the edge of the lid by Flarer's operation of the anterior layer, containing the ciliary bulbs.

Aug. 9th.—The lid from which the lashes were removed is more swollen than the other.

Aug. 15th.—A short, narrow strip at the middle of the ciliary edge of the *right*, that on which the grooving was done, seems to have sloughed.

Aug. 19th.—The lashes of the temporal half of the upper lid of the right were turned outward by the operation, as desired, but a small portion at the middle of the upper lid-edge has sloughed, leaving a notch about 1½ lines deep, and 2 lines long.

In general, a small incision of the conjunctiva would not be injurious, and even the excision of a small bit, though to be avoided, as giving rise, subsequently, to a scar, which might irritate, yet would hardly interfere seriously with the healing. In the above case, one or more of the sutures may have been drawn too tightly, or the sloughing may have been due to the age of the patient.

Case IV., 1873, Aug. 18.—A woman, Irish, aged 30 years, had had, about six years ago, the lashes removed from each upper lid by Flarer's operation. The *right* eye had been relieved. The *left* was still troublesome, and shows some lashes still growing at the nasal half, and the temporal half of the tarsus is quite convex externally. The patient, complaining of suffering in this eye, is admitted to the Infirmary, and two days afterwards, in the hope of relieving the irritation, the remaining lashes of the left upper lid were removed, and a strip of tarsus was also excised lengthwise from the temporal half of the lid, in order to relieve the incurving of this part of the edge.

Aug. 22d.—Discharged, relieved.

The *left* eye, in this case, illustrates well the occasional unsatisfactory result of Flarer's operation for removal of the ciliary bulbs, although the other eye had been relieved by that operation.

Case V., 1873, Aug. 7.—A young man, aged 18, was admitted to the Infirmary with granular ophthalmia, incurved upper lids and some trichiasis. He remained under treatment for some time, and was again admitted Dec. 1st, for operation, which was done by grooving the tarsus of each upper lid by a method similar to that of Snellen, three sutures being inserted in each case.

Dec. 9th.—Swelling of lids less. Ecchymosis nearly or quite gone. Middle third of edge of right upper lid excoriated along the line of emergence of the lashes.

Dec. 13th.—Insufficient closure of lids of each eye, which, however, existed before the operation, according to the patient.

Dec. 23d.—Middle third of edge of right upper lid is without lashes. Patient thinks operation has helped him.

1874, Feb. 11.—Effect of operations on the position of the lashes is rather satisfactory, but conjunctival disease remains.

Case VI., 1874, Jan. 5.—A young man, aged 15 years, born in England, was admitted to the Infirmary with trichiasis, entropion and corneal opacity of the *right* eye, and nystagmus of both eyes.

Jan. 6th.—A strip of tarsal substance was removed from the tarsus of the the upper lid of the *right* eye; three tarsal sutures, and one to connect the flaps of skin, were applied.

Jan. 9th.—Discharged from the Infirmary, improved.

Feb. 24th.—Right eye much improved as regards entropion, but nystagmus remains. Patient thinks some improvement, also, in vision of *right*.

Case VII., 1874, Feb. 27.—A man, aged 31 years, born in Ireland, was admitted to the Infirmary. The *left* eye was lost from smallpox many years ago. The eyeball was atrophied, but without pain, spontaneous or on pressure. In the *right* eye, there was granular ophthalmia, with a slight incurving of the edge of the lid, and alteration of the corneal surface. The lashes had been pulled out at various times since last April. Now several small cilia turned towards the cornea.

Feb. 27th. A strip removed from the tarsus of the right upper lid; a thick, large strip from the temporal half, but not as large a piece from the nasal portion. This was perhaps due to the nasal end of the cutaneous incision being a little too far from the edge of the lid. At this end of the lid, the conjunctiva was accidentally incised.

March 1st.—Sutures removed.

March 14th.—Edge of lid well everted. Cornea improving.

March 15th.—Patient thinks he sees better than before the operation. Conjunctival disease remains, and may require further treatment.

PNEUMONIA; PLEURISY; PNEUMO-EMPYEMA. PERMANENT OPENING FOR FOUR MONTHS. RECOVERY.

By H. C. Marion, M.D., of Brighton.

M. S., strong, well developed, nineteen years old, fell sick with pneumonia of right lung, February, 1873, after exposure to cold. As resolution was being established, trouble in the left lung was announced by chill, increased febrile disturbance, with physical signs of pneumonia. The disease took on an asthenic form, and for eight or ten days his case looked very doubtful. In due time, however, convalescence was pronounced, but was interrupted in a few days by pleuritis of the right side. This was followed by effusion. As this condition caused no urgent symptoms, the line of dulness being an inch or more below the nipple when in an erect position, I depended on general treatment rather than direct interference. In April, he was out, and came to the office for advice. He im-

proved very slowly, if at all, on tonics, stimulants and generous diet. On this account, I suppose, I lost sight of him until June 14th. Under this date, I find in my note-book :—" Have lost sight of him (the patient) since the 1st of May. As he is now losing ground very rapidly, he comes to me, asking the very pertinent question, 'Is there nothing you can do for me? I am losing ground every day.' His general appearance is convincing proof of the last assertion.

" Examination of the chest, by inspection, shows unilateral respiration ; apex beat of heart at left of nipple-line ; percussion gives dulness over whole of right side as high as the nipple ; less marked above. Some dulness at the lower part of left chest posteriorly. Auscultation gave signs of bronchophony at upper part of right, absence of respiration below the line of dulness ; vocal fremitus marked above line of dulness ; vesicular murmur fair on the left side. Succussion sound is very marked. Causing him to stoop and rise quickly to erect position, my ear all the while on the chest, the peculiar *splashing* sound cannot be mistaken. Expectoration purulent and fœtid. Sitting bolt upright is the only position he has maintained for the past two weeks, day and night. No appetite ; frequent chills, with hectic and inability to get warm. Pulse 120. Temperature 103°. Indeed, he looks as if he must soon pay the debt of nature."

Satisfied of the presence of pus and air in the pleural cavity, I told him and his parents I could do nothing for him unless I opened the chest ; and, although that might not cure him, it would certainly relieve him. They consented. On the 15th of June, assisted by Drs. J. L. Hildreth and E. H. Stevens, who previously confirmed my diagnosis and seconded my desire to open the chest, I introduced a medium sized trocar between the eighth and ninth ribs directly below the angle of the scapula. No anæsthetic was used. Thirty-four ounces of pus escaped from the canula. I then introduced a probe through the canula, removed the canula, and passed a director on the probe. With a bistoury, I made an incision, about an inch and a half long, between the ribs. With a common Davidson's syringe, I injected water containing carbolic acid. This I continued to do daily for nearly two months, excepting for a few days, when Dr. Giddings kindly cared for my patient in my absence.

The immediate relief he experienced was very great. As he remarked the day following, the ease he got was worth the operation if he should not live twenty-four hours. He improved constantly, with but few remissions. The cavity, which held at first a little more than a quart, became gradually smaller. Cough and expectoration ceased almost at once ; night sweats, chills and hectic disappearing. Appetite returned, and he gained in weight rapidly, so that I noted, from July 1st to the 21st, he gained twenty-four pounds.

I tried various devices for drainage ; but the simplest method was by far the best, namely, a piece of linen introduced (which could be easily done with a probe and director), the outer extremity divided and made fast to either side of the opening with collodion.

July 25th, I noted a very strange occurrence, undoubtedly the result of pressure or irritation of the intercostal nerve. From my notes of that date :—" Tent came out during the night ; on introducing the tube (a female catheter, the extremity of the syringe being now too large), I found it necessary to break up recent adhesions ; this was done with no

unusual pain. The tube fitted so closely that the water did not return around the tube as usual when the cavity became full. After I had injected about half a pint, he asked me to stop, as it distressed him. Disconnecting the syringe, the tube slipped partly out. As I re-introduced it, he exclaimed, 'My right hand feels so queer.' He looked strangely; thinking him faint, I laid him back upon another chair, asking him how he felt. 'I can't tell how I feel. It is going all over me.' Every muscle in his body seemed to be relaxed, and he was perfectly unconscious. I felt hastily for the pulse, but did not detect it. We lifted him to the bed, and commenced vigorous friction over the body. Pulse could soon be felt at the wrist, and he was in a few minutes able to swallow stimulants. On examination, I found he had had an involuntary dejection. He felt strangely for several hours. In describing his sensation, he said:—'At first, it was very much like the sensation when one hits his 'crazy bone;' after that, I didn't know anything.' From the 1st of August until the 5th of November, I continued to wash out the chest every two, three or four days. After that, I allowed the opening to close, as nothing but serum escaped from the cavity."

Nearly all this time, he could with the greatest of ease extinguish a candle held to his side. He could also taste the carbolic acid injection, and would often spit the fluid from his mouth, showing the opening through the lungs to be patent.

Feb. 1874. Examination of the chest shows but little, if any, difference in its contour. Resonance good over both lungs. Respiratory murmur somewhat more feeble over right than left. He says he never felt better in his life than he does now.

Strangulated Umbilical Hernia, with Loss of Portion of Intestine.—The patient was a woman, aged about 68 years, and, when first seen, was found bathed in a cold, clammy perspiration, with feeble pulse, vomiting fluids of a stercoraceous odor; all her symptoms, in short, pointing to impending collapse. Upon exposing the abdomen, an umbilical hernia was found, the size of a child's head, the integuments covering the tumor being highly inflamed, of a dark, livid color, and on the verge of giving way from excessive distention. Upon inquiry, it was ascertained that the hernia had existed for thirty years, and she had experienced frequent attacks similar to the present, which had always been relieved by fomentations. Strangulation had now occurred three days previous, and meanwhile no medical aid had been called, though her sufferings had been excessive. The operation for artificial anus presenting the only hope for relief, an opening was made through the integuments and tissues beneath, exposing the intestine, the walls of which immediately gave way from distention, giving exit to the feculent and gaseous contents of the loop. The incision in the integuments was then enlarged, exposing fully the interior of the tumor, which was found to be in a gangrenous condition, a well-defined line of demarcation appearing at the point of exit from the abdomen. This gangrenous loop was next separated and removed, and was found to be composed of *fourteen inches* of the transverse colon, with a large portion of omentum. The operation was followed by a rapid disappearance of all the distressing symptoms, and recovery rapidly ensued. At a subsequent date, the edges of the two ends of the colon were refreshed and approximated by means of wire sutures, the result of which was that a complete union was obtained, so that the entire contents of the colon again made their exit at the rectum. It is now over two years since the closure, and the woman is in perfect health, being able to do her own housework.—Dr. J. N. Reeder, in *The Chicago Medical Journal*, June, 1874.

Progress in Medicine.

REPORT ON SURGERY.

By J. Collins Warren, M.D.

[Concluded from page 599.]

The Elastic Ligature.—The elastic ligature has not met with such success in this country as its advocates possibly may have hoped for it. It is said to possess certain advantages, however, in the treatment of fistula in ano, particularly if the fistula is a long one. All danger of hæmorrhage is avoided, and the healing process goes on with rapidity after the ligature comes away, which event usually occurs at the end of about four days. The pain and inconvenience to the patient is slight, and no confinement to bed is required.

The mode of proceeding in the use of the elastic ligature is described by Prof. Dittel, in an article published by him in the *Allgemeine Wiener Medizinische Zeitung*, Feb. 25th and March 4th, and translated for the *London Medical Record*, December 3d, 1873. We give the following extract:—

"In nævus, after transfixing it with needles as for ordinary ligature, I have the tumor fixed by an assistant during the tying. A single, circular ligature is sufficient. In the two cases in which I used this treatment, the nævus fell off in eight days.

"In fistula ani or sinuses about the rectum, the elastic ligature has especial advantages where the inner opening of the fistula lies high up or the sinus extends far. In the case of sinus, an inner opening (into the rectum) is first made by means of a trocar. The trocar being withdrawn, the elastic thread is introduced through the canula and drawn out through the rectum. This proceeding is rendered more easy by first introducing a metallic thread into the rectum through the canula, seizing it with the finger or forceps, drawing it through the anus, and removing the canula. The outer end of the wire is now fastened to the small elastic tubing by means of a waxed thread. In this way the elastic cord is very easily drawn through, if the index finger of the left hand can be passed up the rectum as far as the opening. Both ends of the ligature are drawn upon, and tied rather tight. The bridge of intestine with the sphincter is generally cut through in three or four days, and the patient finds the ligature, contracted into a ring, lying in his bed. In complete fistula ani, the metal wire is carried into the intestine along the groove of a director, and the use of the trocar is unnecessary.

"In prolapsus ani, the protruding fold is seized with hooks or polypus-forceps, as for the application of the ordinary ligature, and drawn down a little. In order that the fold may not escape from the forceps while the ligature is being applied, an assistant must press against the fold after it is seized, a second must stretch the cord, and a third must fix between his fingers a small portion of the cord corresponding to the fold, so that it remains only for the operator to tie the ligature. The ligature falls off in three or four days.

"In tumors, the elastic ligature has its application when they are pedunculated, or when they can be isolated, or when it is not possible

or necessary to save the skin. It is thus inapplicable in diffuse infiltration. I have had only one opportunity of applying the elastic ligature to a tumor. The patient was Frau H., aged 74, and at her age neither I nor another surgeon would have undertaken the risk of a bloody operation. But, having already ascertained that the elastic ligature did not produce any fever, and as the old lady earnestly desired that the tumor—a fibrous cancer of the right breast—should be removed, I concluded to make this first attempt. The cancer had at its base a vertical diameter of about four inches, and a transverse diameter of five inches, and was movable. I passed a Fleurand's trocar through, beneath the tumor, in the direction of the vertical diameter; and, having withdrawn the trocar, I introduced through the canula two waxed threads, and by means of them drew through two pieces of small India-rubber tubing; the canula was then withdrawn, leaving the tubes. I now, while an assistant drew forward the tumor, embraced each half in the corresponding portion of tube, and tied the ends of the tubing firmly in a double knot. This was done in the out-patient department, on January 9, 1873. On the second day, I had the patient taken into ward No. 81, as she was rather anxious on account of some pain. The furrow produced by the ligature became deeper daily before our eyes, leaving a granulating surface, while the tumor correspondingly collapsed, sloughed, and fell on the tenth day. During the whole time, the patient had no fever, only an increase of thirst on the eighth day. The old lady was right well pleased with the result.

"I have applied the elastic ligature to arteries in the following cases:

"*a.* To the popliteal artery, on the occasion of amputating the left thigh after Gritti's method. The ligature was thrown off on the sixteenth day.

"*b.* To the anterior tibial artery in two cases of amputation of the left leg, the ligature falling off on the seventh day; and once in a Pirogoff's amputation.

"*c.* To small branches of the anterior and posterior tibial and peroneal arteries."

The writer does not seem to have had much success in the application of the ligature to arteries.

Resection of the Elbow-joint.—Hueter. (*Jahresbericht*, 1872, Band ii., abtheilung ii.) The peculiarity of Hueter's method consists in making two lateral incisions, one over the internal and one over the external condyle. A longitudinal incision, from one to two centimetres in length, is first made over the internal condyle and a little nearer the volar than dorsal aspect of the joint, in order to avoid the ulnar nerve. The condyle is then freed from the muscles inserted into it, and also from the internal lateral ligament. A second incision, made over the external condyle and head of radius, opens the joint. The head of the radius is turned out and sawn off. The left forefinger is next inserted through the space thus made underneath the anterior portion of the capsule, which is made tense, and its insertion into the anterior aspect of the humerus is divided with a knife; or, if it is necessary to resect a portion of the shaft of the humerus, the capsule and periosteum are lifted off the bone by a periosteum elevator. The forefinger is then introduced beneath the posterior portion of the capsule, which is separated from the bone in the same manner. The elevator should always

be used in raising the ulnar nerve from the bone. The end of the humerus is now pried out through the radial incision, which movement generally ruptures the portions of the capsule still adherent to the bone, and also any fibres of the internal lateral ligament which have remained uncut. The bone is sawn off with a bowshaped saw. The tendon of the triceps is next separated from the olecranon with knife and elevator, and the coronoid process is freed in the same way. Sawing off the articular end of the ulna completes the resection. A silver drainage tube is inserted into each incision, and the arm is put in a plaster bandage, in which openings are left on the inner and outer side of the joint. The advantages claimed for this method are that the tendon of the triceps remains uninjured, and its connections with the periosteum of the ulna and the fascia anti-brachii are maintained. The operation also facilitates the subperiosteal resection of the joint. Heuter has performed this resection, with gratifying results, in seven cases.

The Application of Esmarch's Bloodless Method to Amputation at the Hip-joint.—(Prof. Volkmann, *Centralblatt für Chirurgie*, No. 5, 1874; *Allgemeine Medizinische Central-Zeitung*, May 9, 1874.)—The author of this article gives three cases of amputation at the hip-joint, in which he has employed Esmarch's method, which, he thinks, can be adopted with complete success (?) in this operation. The limb having been bandaged up to the groin, the India-rubber tubing is applied on a line starting from the femoro-scrotal commissure and directed obliquely outwards, running parallel to Poupart's ligament. The tubing should be firmly held in place during the operation, either by the hands of assistants or by means of three loops of bandage, which should pull it upwards and prevent its slipping forward over the muscles which have been cut through and have retracted. In all three cases, skin flaps were made, the muscles divided by a circular cut three fingers' breadth below the groin, and the bone was sawn through at this point. All vessels that could be seen were then tied, and the remainder secured while the tubing was very gradually loosened. Finally, the remaining portion of the bone was laid bare by peeling off the periosteum, and the head of the bone was removed from the socket.

The first case was that of a very anæmic boy with hip-joint disease, which had gone too far to admit of resection. Less than one ounce of blood was lost. The femur separated readily from the inflamed periosteum on very slight traction.

The second case was a very large and muscular man, whose leg and thigh had been mangled in a railroad accident. Loss of blood, less than three ounces. Death from shock.

The third case was that of a man with a suppurating and bleeding myxo-fibroma. On the application of the bandage, there was a brisk hæmorrhage from the ulcerated portions of the tumor, and although this was speedily checked by the application of compresses, about three ounces of blood were lost. Two ounces more were lost during the operation. According to the writer, death from chronic chloroform poisoning occurred four hours after the operation.

Subcutaneous Injection of Carbolic Acid.—Dr. Hueter recommends the subcutaneous injection of carbolic acid as a remedy in certain local affections (*Centralblatt für die Medicinischen Wissenchaften*, Jan. 24; *British Medical Journal*, Feb. 14). The danger of poisoning is

very slight, for, when given in this way, most if not all of the acid is absorbed by the lymphatics, and only small portions gradually enter the circulation. He uses a solution of two parts of carbolic acid in one hundred of water. This is injected by means of a subcutaneous syringe which holds about three-tenths of a grain of carbolic acid. The injection of two syringefuls of the solution at the same time has not been found to produce any symptoms of poisoning, nor has any darkening of the color of the urine been observed. This dose has not been exceeded at one injection, and the operation is repeated, if necessary, only after an interval of one or two days. No pain or swelling follows.

The antiphlogistic action was well marked in nearly all cases. It is, he thinks, one of the most powerful antiphlogistic remedies which we possess.

In white swelling of the knee, the injections are made at the most central part of the joint, so that the needle touches its surfaces. The result is abatement of the pain, falling of the evening temperature—which had been persistently high—and reduction of the swelling. The injections must be repeated at intervals of two or three days, according to the chronicity of the disease.

In subacute glandular swellings having a tendency to suppuration, and in inguinal and femoral buboes, the injection leads to abatement of the pain, redness and œdema, while the glands become reduced in bulk. The injections must generally be repeated several times.

In acute phlegmon of the subcutaneous and subfascial connective tissue, the injection is made at the periphery, as it may be calculated that the lymphatics will carry the remedy towards the centre. The result is to produce contraction of the tissue in a few hours, with cessation of the pain. Recovery takes place without suppuration, even if this, though imminent, has not already appeared.

In traumatic erysipelas, he makes an injection at different points along the edge.

Dr. Hueter states that the acid should be so injected as to be carried into the cavities of the largest joints, into the connective tissue surrounding the vessels, and into the interior of the lymphatic glands, and there exert its antiphlogistic influence.

He thinks this form of treatment may be adapted to diseases of the internal organs.

He cautions against the use of carbolic acid injections into any vascular tissues and tumors, as poisoning may be very easily produced.

Malum Perforans Pedis.—(Duplay and Morat. *Archives Générales*, May, 1873; *Schmidt's Jahrbucher*, Band 160, Heft 3.)—The authors have confined themselves to a study of some of the clinical symptoms and to the anatomical changes occurring in this disease, chiefly with a view to throw light upon the cause of the disease. Among the former, may be noticed the loss of sensibility in and around the ulcer, the paralysis of certain muscles and secondary inflammation which accompany the disease, and among the latter the changes in the nerves.

They thus formulate their views:—

1. The disease is an ulceration of the foot, which is accompanied by a degeneration of the nerves of this region.

2. The degeneration of the nerves, which is a cause of the ulceration, can arise from various causes: disease of the spinal cord, of the

ganglia, division or compression of the nerve trunks, alteration of the peripheral nerves.

3. As soon as the ulcer makes its appearance, the surrounding tissues undergo inflammatory changes. These changes may extend to a great distance from the original seat of the disease.

Necrosis.—Professor Heincke, in No. 63 of *Volkmann's Sammlung Klinischer Vorträge*, gives an account of necrosis of bone. "The proper time for the surgical removal of a sequestrum," he says, "lies between the period of the complete detachment of the same from the living bone and that at which serious affections, such as Bright's disease and lardaceous degeneration of the abdominal viscera, make their appearance. The separation of a sequestrum from the living portions of bone does not, according to general experience, take a longer period than six months; hence the practical rule that, even in cases where the sequestrum is not movable, an attempt should be made to extract it if the necrosis commenced at least six months before. The author recommends that, where the sequestral capsule or case of new bone is very thick and its cavity very large, the whole of one wall of this capsule be removed. By this proceeding, the healing of the wound after extraction of the sequestrum is much accelerated."

An abstract of this lecture may be found in the *London Medical Record*, February 4, 1874.

Sugar Coated Quinia Pills.—Dr. A. B. Lyons, of Detroit, has recently made an analysis (*American Journal of Pharmacy*) of different samples of sugar-coated pills, with the object of determining whether there was contained in them the full amount of quinia announced on the labels, and also to ascertain to what extent other alkaloids are substituted for quinia. The results of his experiments are given in the following table, the pills, obtained from five prominent manufacturing houses, being designated by numbers. We are are at a loss to determine why he has failed to disclose the names of the different manufacturers. Physicians will be reluctant to trust to the uncertain effects of fraudulently prepared drugs, and unless the names of the delinquents are made known, the result of these analyses will incline them to reject all quinia pills whatsoever issued in this form.

	Gross weight of 2-grain pill.	Alkaloids soluble in ether from five 2-grains pills.	Sulphate of quinia from five 2-grain pills.	One 2-grain pill crystallizes from water.
No. 1	4.8 grs.	7.15 grs.	9.55 grs.	5.5 drachms.
2	4.7 grs.	7.1 grs.	9.5 grs.	5.5 "
3	3.8 grs.	5.55 grs	7.4 grs.	1 "
4	3.7 grs.	4.65 grs.	6.2 grs.	3 "
5	4	5.7 grs.	4.3 grs.	2.5 "

The following simple test is recommended for estimating approximately the quantity of quinine contained in a pill, and is so simple as to be capable of being applied by those who make no pretensions to skill in chemical manipulation.

"Dissolve a two-grain pill in a fluid-drachm of water, by boiling it in a test tube. On cooling, the fluid should be set into a dense network of fibrous crystals. Add a fluid-drachm of water, or a larger quantity, if the first crystallization has been satisfactory, and heat till the crystals re-dissolve. In this way, proceed until crystals form in the solution only sparingly after cooling. The volume of fluid, in drachms, multiplied by 100, and divided by 6, will give now, approximately, the percentage amount of true quinine in the pill."

Bibliographical Notices.

An Introduction to Physical Measurements. With an Appendix on Absolute Electrical Measurements. By Dr. F. KOHLRAUSCH. New York: D. Appleton & Co.

Elements of Physical Manipulation. By Prof. E. C. PICKERING. Boston: printed for the Author. 1873.

THE work of Dr. Kohlrausch, which is entitled *Leitfaden der Praktischen Physik*, has been much improved by Mr. Waller and Mr. H. R. Proctor, who edit the English edition. The subject of electrical measurements is peculiarly well adapted for practice in manipulation by students. Dr. Kohlrausch did not treat the subject fully in his work. The English translators have added valuable chapters on this branch of physics. The tables of physical constants appended to the German edition were very meagre. The English translation contains valuable additions in this respect also. The aim of the book is evidently to aid teachers and a select class of advanced students who may be pursuing their studies in physical laboratories. A German professor evidently would not consider it possible to provide work for a large class of mixed students in a physical laboratory. Such laboratories have long existed in Germany; but the number of students studying in them has always been limited, never more than six or eight, and these students have generally been picked men. To such students, this work of Dr. Kohlrausch cannot but be very valuable. It contains methods of estimating errors of observations, determination of empirical constants, calculation of corrections and rules for numerical calculations. The experiments under the various heads of mechanics, heat, light and electricity, contain general discussions of methods of work, without, in general, their application to special pieces of apparatus.

Prof. Pickering's work, on the other hand, is adapted for students of a somewhat lower grade, in a laboratory fitted up to accommodate a large number of students, according to American ideas. The experiments are so selected that the teacher of a high school would find no difficulty in starting a class in physical manipulation. Much thought has been expended on the simplification and invention of suitable pieces of apparatus to put in the hands of students. In this respect, it differs largely from the work of Dr. Kohlrausch. A teacher would find it difficult to establish a laboratory on the basis of Dr. Kohlrausch's book for a class of American students, but no difficulty would be found in doing this with the aid of Prof. Pickering's work.

The chapter on general methods of investigation, in the last-mentioned work, contains much new matter, especially in the matter of graphical methods. The importance of representing physical laws by curves is insisted upon throughout; and in this respect the work differs also from Dr. Kohlrausch's book. The article on the graphical method is condensed from a valuable paper published by the author in the *Journal of the Franklin Institute*, lxi., 272. There are many novelties in this book; for instance, the apparatus for ruling scales (page 59), the photometers (pages 132 and 134), and the polarimeter (page 221). Another volume, on Heat and Electricity, with tables and lists of books of reference, is promised by the author, and will be looked for with great interest. The authors of these two books can congratulate themselves on having given an impetus to the only rational way of studying physics. J. T.

Transactions of the Michigan State Medical Society, for the Year 1873. Lansing. 1873. 8vo. Pp. 170.

THE seventh annual meeting of the State Medical Society of Michigan was convened at Saginaw, June 11, 1873, and the published account of the proceedings affords satisfactory evidence that the Society is in a highly flourishing condition. The annual address was delivered by the President, Dr.

A. B. Palmer, his subject being "Law and Intelligence in Nature; and the Improvement of the Race in accordance with Law."

We append the titles of the papers published in the proceedings; the papers relating to the matter of school hygiene contain many important suggestions upon a topic to which the laity as well as the medical profession are just now having their attention especially directed.

1. The Laws of Hygiene, in their relation to the Government of Schools, as affecting the Development of Children, Physically, Mentally and Morally. By H. O. Hitchcock, M.D.

In this paper, Dr. Hitchcock discusses some of the questions relating to the government and *régime* of schools. As to the age at which young children should be first sent to school, he considers that, for children under six years, a single session of two hours should be deemed sufficient for the day, or else two sessions of one hour and a half each. To schools constituted and conducted, however, like the kindergarten schools, where the instruction is of a nature to afford real amusement to the pupils, children as young even as three years may be properly and profitably sent. But, when we consider the unattractive manner in which the majority of our primary schools are conducted, it is not advisable to require the attendance of our children at an earlier age than six to eight years. The detention of a pupil after a lengthy session, as a means of punishment, is denounced as a striking infringement of the laws of hygiene, as shown by the circumstance that quite a number of boys and girls have been known to return home after such detention with their clothing soiled from over distention of the rectum and bladder, while in other instances headache and loss of appetite were reported. Other children experienced so great a degree of nervous agitation from the dread of after-school detention, that recitation became almost impossible. Cases are referred to in which this excessive nervousness culminated in either epilepsy or chorea. Dr. Hitchcock maintains, in conclusion, that our school system should be so reformed as to avoid the charge of being in a great measure responsible for the degeneracy of the American people. It should be made to conform to the exacting laws of hygiene, so as to contribute to the highest and most perfect development of children, both physical and mental. To attain this desired result, it is first of all important that the teachers should be educated with regard to the laws of physiology in their relation to the physical requirements of the young.

2. Hygiene, as applied to the Construction, Warming, Ventilation and Sewerage of School Buildings. By H. C. Kedzie, M.D.

This paper exposes some of the errors of our school system, and is all the more valuable from the circumstance that it embodies the results of extensive original investigations. The writer animadverts severely upon the erection of lofty structures for school purposes, and introduces testimony to show that excessive stair climbing may be productive of very injurious effects, more especially in those young girls in whom the menstrual function has been recently established. He expresses the conviction that school buildings should not exceed two stories in height. In cases, however, where necessity compels the use of these objectionable high structures, much evil can be averted by assigning girls between the ages of 11 and 17 to the first and second floors. The different methods of heating and ventilating schoolhouses are detailed at length; the method of analyzing air is explained, and, finally, the results of the inspection of a large number of schools is given.

3. Ethics. Shall the Medical Profession, or the Medical Schools, control Admission to the Ranks of the Profession?

This is the report of a committee, advocating a higher grade of medical culture, and maintaining that the profession itself, apart from the medical schools, should exercise a visible censorship and control over all admissions to its ranks, whereby the final decision as to a man's fitness to practise medicine shall be lodged with a power that does not find a pecuniary reward in granting diplomas to the unworthy.

4. Report of the Committee on the Medical Department of the University.

5. Coccyodynia. By Edward W. Jenks, M.D.

This affection is shown to be due to the action of the muscles attached to the coccyx. It is peculiar to women, because in females there is a greater development of the gluteal and other muscles attached to the coccyx, this development being a necessary consequence of the greater size of the female pelvis.

6. Otitis Media. By Eugene Smith, M.D.

7. A Case of Dislocation of the Spine, with Fracture of the Ribs. By L. W. Bliss, M.D.

8. Embolism of the Central Artery of the Eye; a Cause of not unfrequent Attacks of Sudden Blindness, with illustrative Cases. By Prof. J. F. Noyes.

Medical Society of New Jersey; Transactions. 1873. Newark: 8vo., pp. 224.

We learn from this report that the one hundred and seventh annual meeting of this State Society was held at Mt. Holley, May 27, 1873. After the opening address by the President, Dr. F. Gauntt, an essay was read by W. O'Gorman, M.D., his subject being "A Speculation on the Operative Treatment of Non-traumatic Peritonitis." This paper contains an able argument in favor of the operation of abdominal section, as a last resort, in the treatment of certain forms of peritonitis, more especially those cases, both acute and chronic, in which there are decided evidences of effusion. The operation would be likewise justifiable, he thinks, in cases of peritonitis resulting from perforation of the intestine, for, by this means, the irritating substance may admit of removal, while, at the same time, the subsequent discharge into the peritoneal cavity may be arrested. It is maintained by the writer that to open the abdominal walls in these lesions is simply carrying out to its legitimate end a common principle of surgery, imitating the course laid out by nature in instances of spontaneous opening.

In a paper entitled "Nervous Disorders of Women," T. H. Studdiford, M.D., gives, at considerable length, his views upon the etiology and pathology of hysteria, myalgia and cephalalgia. With regard to the origin of the phenomena characteristic of hysteria, he dissents from the views of the earlier pathologists in referring the originating cause of the malady to some derangement of the uterine, or reproductive system. He inclines, on this point, to the views of Dr. Tilt, maintaining that the predisposing conditions are to be found in the nervous system. He admits, however, that an eccentric cause may at times be found in some ovario-uterine, or other visceral disturbance. Myalgic pains are to be regarded, according to Dr. Studdiford, not as symptomatic of spinal irritability, but rather of muscular and nervous derangement, indicating a want of relationship between the muscles and the nerves supplying them. The disease may also be dependent upon some lesion of the nerve centres, and thus derive its origin from the enervating influence of disease and fatigue.

Ezra M. Hunt, M.D., in a paper upon "Professional Ethics," considers, at length, four special questions pertaining to ethics, as follows :—

1. What is the duty of regular physicians as regards medical societies ?

2. What is our duty to physicians of different faith and practice from us ?

3. What are our privileges as to advertising, or in general as to the management of our profession as a business ?

4. What is our right relation to patent medicines, or instruments, and to dealers in, or venders of the same ?

The views expressed by this writer are, on the whole, so sensible that we are the more surprised to come across the following statement as to the propriety of advertising.

"We have never seen a reason why a physician, settling in a place, should not issue a modest card or circular, or newspaper notice, stating his time and place of graduation, and, if he choose, giving the names of two or three physicians to whom he may refer. Such a course is neither boastful nor intrusive, and so far from being an injury would help to draw a real line between those who come without right qualification and those duly authenti-

cated, and the public would learn better to distinguish between regular and irregular practitioners."

That a young physician may, by keeping his name prominent before the public eye, obtain, within a short time, the favor and patronage of the community is a fallacy that has been repeatedly exposed, and finds now but few advocates. The process of securing the confidence of the public, without which the benign vocation of the physician cannot be exercised, must, from the very nature of the case, be a slow and gradual one. There are, it is true, certain means of attracting patients by a liberal display of newspaper notices and testimonials, but custom has assigned to the quack this method of presenting one's claims. Whatever estimate the young physician may form of his own abilities and attainments, he cannot expect the community to view them in the same light, until he has given evidence of his ability before some competent tribunal. Such a tribunal is afforded by society meetings and medical periodicals. To these, therefore, let the aspirant for medical honors make his appeal, rather than to the general public. Professional advertising has, in this section of the country, at least, fallen under condemnation, as tending to give rise to petty jealousies and local rivalries, and in this way lowering the character of the profession with the public.

In the appendix of this report are contained a collection of clinical cases of more than ordinary interest.

Lectures on Bright's Disease, with especial reference to Pathology, Diagnosis and Treatment. By GEORGE JOHNSON, M.D., F.R.S., &c. New York: G. P. Putnam's Sons. 16mo. Pp. 152.

THESE lectures are reprinted from the *British Medical Journal*, and are intended mainly for the use of students of medicine, though they will be found both interesting and valuable to the practitioner. They are quite elementary in their character, being devoted chiefly to the clinical history of the various affections which are commonly included under the head of Bright's disease. A sketch of the anatomy and physiology of the kidney (chiefly after Bowman), of the modes of testing the urine for albumen, and its microscopical investigation, and some general propositions relating to Bright's disease, are the subjects of the first lecture, which is followed by four others, on acute Bright's disease, the small granular kidney, the large white kidney, and the waxy kidney, respectively. The last two lectures are devoted to the subject of albuminuria not associated with Bright's disease, and to the treatment of acute and chronic Bright's disease.

Dr. Johnson's reputation as an investigator of Bright's disease makes everything written by him on the subject of interest. As containing good clinical descriptions of the various forms of Bright's disease, with judicious remarks on their treatment, contained within a small compass, we can recommend the book to those who have not the time or the patience to undertake more elaborate treatises. In accordance with the plan of the work, the subject of the pathology of Bright's disease is very briefly discussed; but enough is said to show that Dr. Johnson's views are not in accordance with the results of the best and most recent investigations in renal pathology, and this constitutes a defect in the work.

BOOKS AND PAMPHLETS RECEIVED.

A New Apparatus for Extensor Paralysis. By John Van Bibber, M.D. (From *New York Medical Journal.*) 1874. Pp. 6.

Report of Cases treated by Electricity. (From the *Transactions of the Medical and Chirurgical Faculty of Maryland.)* By John J. Caldwell, M.D. 1873. Pp. 21.

Electrolysis in the Treatment of Stricture of the Urethra. By Robert Newman, M.D. (Re-printed from *Archives of Electrology and Neurology.)* New York. 1874. Pp. 32.

Boston Medical and Surgical Journal.

Boston: Thursday, June 25, 1874.

Not only the profession but all the inhabitants of Massachusetts have lost a friend and a benefactor by the death of Dr. George Derby. He expired in the first hour of June 20th, after an obscure and most painful illness of about a month's duration. The autopsy revealed abscesses in the liver, and peritonitis. Dr. Derby was born in Salem, in 1819; he was in the class of 1838, and took his degree in medicine at Harvard in 1843. Early in the war, he went into the field as Surgeon of the 23d Regiment of Massachusetts Infantry, in which, and other medical positions, he served with distinction till the end. On his return to Boston, he resumed the practice of his profession, and was appointed Surgeon to the City Hospital; but his tastes led him to sanitary studies, and in 1866 he began to edit the Registration Reports of Massachusetts, and continued to do so till his death. He took an active part in the establishment of the State Board of Health, which was happily accomplished in 1869, and he has held, from the beginning, the laborious office of Secretary, which made him the executive officer. It is by his labors in this position that he has laid this community under such deep obligation to him; but his influence has extended far beyond the State, and the effects of the impetus which he gave to sanitary science have been felt throughout the country. He was an enthusiastic reformer, but his enthusiasm was always under the control of his reason and of his conscience. He accepted the great responsibilities which often fell upon him, and, though courteous, he was firm as adamant. He made no display, but did his work quietly, patiently, thoroughly. He was Professor of Hygiene at Harvard University, and wrote the reports on that subject for this Journal. There can be no doubt that his labors hastened his death, which leaves a void that cannot be filled. His family and friends have the satisfaction of knowing that his worth is acknowledged, and that the whole community joins them in deploring their loss.

The new rooms of the Portland School for Medical Instruction were opened with appropriate exercises on the evening of June 17th. We are happy to see the revival of this excellent institution, which was founded in 1856, and did good service till its temporary closure, a year or two ago. It is not, strictly speaking, a medical school, as it has no authority to confer degrees, and it is for this very reason the more deserving of encouragement. There are many small colleges

which we wish could be changed into schools of instruction; places where the student seeks learning, not "cramming," or, indeed, a degree, without either one or the other of these preliminaries. There is great need of such an institution in Maine, for, though the course of the Medical Department of Bowdoin is necessarily short, embracing only four months, the Faculty has shown clearly, by rejecting nearly one quarter of the applicants, that degrees are for only the deserving. Now the two terms of the Portland School are arranged to fill up the remainder of the year, and offer far greater advantages than can be obtained by a course of reading, too often merely nominal, in the office of a country practitioner. The corps of instructors is strong and the fees small. At the opening, Dr. Dana delivered a very interesting, historical address, tracing the career of the school, and bearing testimony to the merits of the instructors.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Tuesday and Saturday, June 2 and 6, 1874.)

OPERATIONS were performed in the following cases :—Deformity of Hip, Vesical Calculus, Cancer of Breast, Vesical Calculus, Gangrene of Foot, Cancer of Lip, Tumor of Jaw, Stricture of Urethra, Necrosis of Jaw, Double Hare-lip, Ranula, Lupus of Nose and Face, Fistula of Buttock, Epulis. During the week, Stricture of Urethra, Inguinal Hernia, Stricture of Urethra, one *séance* of Lithotrity in a case of Vesical Calculus.

Deformity of Hip—in a boy twelve years old, following hip disease. The thigh was flexed and adducted to a degree rendering necessary either the use of crutches or a decided stoop of the whole body at every step in walking. Tenotomy of the tensor vaginæ femoris, the rectus femoris and the adductor longus at their origins was performed; the thigh was then extended and bandaged to a straight splint.

Vesical Calculus—in a boy nine years old, who had always lived in Boston, The symptoms had existed two years. Lithotomy by the lateral method. The stone was flat and oval in shape; weight 307 grains, and measured one and five-eighths by one and one-fourth inches.

Cancer of Breast—in a woman fifty-four years old. It first appeared five months ago; had recently become quite painful; was of the size of a hen's egg, and located in the centre of breast. Excised.

Vesical Calculus—in a boy four years old, who had always lived in Boston. Symptoms for six months. Supra-pubic pain, and bloody urine; he had a long prepuce, which he was constantly pulling. Lithotomy by the lateral method. The stone was a flat oval, and weighed 38 grains.

Gangrene of Foot—senile, in a man of sixty-six years; it had involved the distal third of the foot, and the line of demarkation was well defined. Hey's amputation was performed.

Cancer of Lip—in a man sixty-five years old. The disease first made its appearance three years ago; since then, it had become a painful, ulcerating mass, involving one half the lip, and extending downward to the chin. The growth was excised, and the cheek and lip bordering on the line of incision dissected up to permit approximation of the raw surfaces; the wound was closed by silk sutures.

Tumor of Jaw.—An ulcerating, painful tumor of the size of a pigeon's egg, located near the first molar tooth on the alveolar process of the upper jaw, in

a woman, sixty-five years old. It had grown rapidly during the past two weeks. Three teeth were extracted and the growth excised.

Stricture of Urethra—in a man, forty-five years old. It was of gonorrhœal origin, and had existed fourteen years. He had been once relieved by internal urethrotomy. Retention occurred two days before he entered the hospital, and unsuccessful attempts had been made to enter the bladder by the urethra. Under ether, the stricture was found very tight, and would not admit a flexible bougie. The metallic guide of Voillemier's divulsor was passed, and the stricture ruptured with the large tube. A No. 12 elastic catheter was then passed into the bladder and left.

Necrosis of Lower Jaw—in a boy, seven years old, following an abscess caused by a carious tooth. About one half of the ramus of the left side was removed through the mouth, after enlarging the fistulous openings.

Double Hare-lip—in a baby four months old; one side had already been operated on successfully at the hospital. The second fissure did not extend into the nostril. The lip was transfixed just above its border on both sides of the notch, and the incisions carried upwards till they met. The strip thus partially detached was drawn downward, making the wound lozenge-shaped, and forming what has been called a living suture. The fresh borders were then accurately adjusted by fine, silk sutures.

Ranula—in a girl, eleven years old. The cyst was opened, the fluid evacuated, and the interior cauterized with nitrate of silver.

Lupus of Nose and Face—in a man of forty-six years. The disease was at first confined to the side of the nose, and consisted of an ulceration extending from the ala to the bridge, and at one point had opened into the nasal fossa. This had been treated successfully by the galvanic cautery, and is now cicatrized. Recently, a tumor, of the size of a filbert, had appeared under the healthy integument of the cheek, and half an inch below the border of the orbit. An incision was made through the skin, the growth exposed and dissected out; the galvanic cautery was then applied deeply to all the tissues in the vicinity of the disease.

Fistulæ of Buttock—in a middle-aged man, communicating with a sinus four inches long, located in the middle and posterior portion of the thigh; also with a sinus extending upward by the side of the rectum, but not opening into it. Laid open.

Epulis—recurrent, in a woman twenty-two years old. The growth was of the size of a filbert, and located near the last molar tooth. Encircled by an incision, and removed by bone forceps.

Stricture of Urethra—of gonorrhœal origin, in a man forty-one years old. Two years since, perineal section was performed, and had afforded relief until a month ago; since then, more or less difficulty in passing water. On entrance, a filiform bougie would not enter the stricture. Perineal section was performed, the stricture divided and a large elastic catheter passed into the bladder and left.

Inguinal Hernia—in a man thirty-three years old. Symptoms of strangulation had existed thirty-six hours, and unsuccessful attempts to reduce it while under the influence of chloroform had been made before he entered the hospital. He was etherized, suspended by the heels, and the hernia reduced by taxis.

Stricture of Urethra—in a man forty-seven years of age. Five years ago, a perineal abscess opened spontaneously; from that time urine has passed only through the fistulæ which followed. The integument and cellular tissue of the perineum were indurated, and infiltrated with urine and pus. Patient entered the hospital with retention, and the urethra would not admit a filiform bougie. Free incision in the perineum relieved the retention, but no trace of the urethra could be detected, on account of the cicatrices and extensive infiltration.

(Wednesday and Saturday, June 10 and 13, 1874.)

Operations were performed in the following cases:—Chronic Mammary Tumor, Caries of Femur, Hæmorrhoids, Epulis, Thyroid Tumor, Submaxil-

lary Tumor, Erectile Tumor of Lip, Stricture of Urethra, Abdominal Abscess. During the week, Extrophy of the Bladder, Harelip.

Chronic Mammary Tumor—of the size of a walnut, in a woman thirty-two years old. It was movable, and located at the periphery of the breast, near the axilla. Excised by a straight incision of two and a half inches.

Caries of Femur—in a man thirty-six years old, following an injury six years ago, caused by falling on the ice and striking on the great trochanter. Fragments of bone had from time to time been discharged from fistulous openings over the trochanter. Several sinuses, communicating with denuded bone, were laid open, and the diseased surface removed by rasp and gouge.

Hæmorrhoids—in a man. Transfixed and tied.

Epulis—recurrent, in a woman thirty-six years old. The tumor was of the size of a large pea, and located near the second molar tooth. Excised.

Thyroid Tumor—congenital, in a child nine years old. Painless, firm, closely adherent to one side of the thyroid gland. A straight incision of two inches was made through the skin and fascia, and a glandular tumor, the size of a large grape, exposed and dissected out. Its removal was attended by free, oozing hæmorrhage, out of proportion to the size of the tumor, but commonly accompanying the excision of this variety of morbid thyroid growths.

Submaxillary Tumor—painless, movable, and of four years' duration, in a woman eighteen years old. A curved incision was made in the submaxillary triangle, a flap of skin and fascia reflected, and the growth, which was of the size of an English walnut, excised; it was closely adherent to the submaxillary gland. On section, it presented the appearance of a "mixed cartilaginous" tumor, such as is commonly found in the parotid region.

Erectile Tumor of Lip—involving the whole thickness of the upper lip from one commissure to its centre, and extending from the vermilion border to the nose, making the diseased portion twice as thick as the sound part. The integumental surface was stained a deep claret color, and presented a number of cicatrices, indicating the points at which ineffectual attempts to destroy the growth had been made with ligatures and caustics before patient entered the hospital. The bloodvessels supplying the tumor were large, and pulsated strongly. Its size could be diminished by direct compression, but it rapidly re-filled with blood when this was discontinued. The galvanic cautery was plunged into the lip at different points, and held until the coagulation was sufficiently firm to prevent hæmorrhage and insure destruction of the erectile tissue.

Stricture of Urethra—of four years' duration and gonorrhœal origin, in a man thirty-seven years old. Under ether, it barely admitted the filiform bougie of Voillemier's divulsor. The metallic guide was then attached, the stricture ruptured, and a large, elastic catheter passed into the bladder and left.

Abdominal Abscess—in a man twenty-five years old. One year ago, he fell fifteen feet, and struck on his back in the right lumbar region. Three months ago, he began to have more or less pain in this locality, and three weeks ago, first noticed a swelling at the same point; the latter had gradually increased, and extended forward to the groin, and downward beneath Poupart's ligament into the thigh. The swelling in the back was punctured with a trocar, and three pints of pus evacuated; during its removal, the swellings in the groin and thigh disappeared.

Extrophy of the Bladder—in a boy nine years old. Immediately above the penis was a rounded, vascular swelling, covered with mucous membrane, and consisting of the protruded, posterior wall of the bladder; its protrusion varied with the amount of pressure from behind and with the respiratory movements. It was extremely sensitive, and constantly irritated by the contact of clothing. On one side, the testicle had descended, on the other it had not. On the former was a reducible, oblique, inguinal hernia. The open mouths of the ureters could be seen at the lower part of the swelling, and urine canstantly dropped from them on the parts beneath. The umbilicus was wanting. An oblong square skin flap, two and

one-half inches wide by three and one-half inches long, was dissected from the groin, scrotum and lower part of the abdomen, leaving a broad pedicle bordering on the mucous surface described; the integumental surface of this flap was laid upon the mucous surface of the bladder, forming an anterior wall. To protect this raw surface, and provide for the lateral wall of the other side, a second skin flap was taken from the same region of the opposite side and laid upon it. The free borders of the flaps were stitched together by silver wire sutures. The raw surfaces left, from which the flaps were taken, were covered, as far as possible, by the adjoining integument, and the remainder left to granulate. Other steps to complete the result were contemplated when cicatrization had taken place.

Hare-lip.—Edges refreshed, and the wound closed by silver sutures.

H. H. A. BEACH.

BOSTON CITY HOSPITAL.

(Friday, June 19.)

Ulceration of Rectum and Hæmorrhoids.—Sphincter cut, and nitric acid applied.

Epithelioma of Lip.—This was an extensive, but rather superficial growth, occupying about three-quarters of the length of the lower lip, and reaching just below its red border. After removing it, by a long, straight incision, parallel with the lip, the skin and mucous membrane were stitched together. Then a curved incision was started, about a quarter of an inch below the first one in the median line, and carried downward and outward over the chin for more than an inch on each side. By means of this, the lower lip was raised to its original level, without entirely dividing it in the operation.

W. P. BOLLES.

Correspondence.

LETTER FROM VIENNA.

[From our Regular Correspondent.]

VIENNA, AUSTRIA, May 14, 1874.

MESSRS. EDITORS,—In my first letter, I informed your readers that the scientific medical world here had celebrated the seventieth birthday of Rokitansky. Now it may not be uninteresting to those who have heard the magnificent lectures of Prof. Hyrtl, to learn that, on the 16th of March last, the students of the Vienna high school have assembled, about 3,000 in number, to express their appreciation, their high regard and esteem for that great master mind, the teacher of anatomy, who has labored incessantly in the interest of knowledge and medical science for nearly half a century, the man who is justly considered, with the few equals he has—perhaps Henle and Luschka may be called such—one of the most famous living anatomists.

Hyrtl's topographic and descriptive anatomy, his anatomical preparations are models of art, and, I dare say, are known the civilized world over. I do not intend to eulogize him, whom most of the literary and scientific societies all over the globe have elected an honorary member. Nor do I intend to give you a detailed account of the speeches made, of the enthusiasm displayed during the time Hyrtl was seen shedding tears when he took leave of and bade farewell to his pupils, who admired his genius and truly loved him like a father. He announced, on that occasion, that he retires from the chair of anatomy, which he has adorned since 1837.

Professors Carl Langer and Voigt now fill the chair of descriptive anatomy; the latter has acquired great fame by his artistic dissections of the finest fibrillæ of the nerves of the skin. Prof. Recklinghausen, now of Strassburg, has been here a short time ago. He is said to have accepted the offer of the

chair of morbid anatomy, proffered to him by the Austrian government.* The designated successors are great men in a scientific sense of the word, and will endeavor to sustain the name of the Vienna school; but it will take a long time for either Langer, or Voigt, or Recklinghausen to establish a reputation like that of Hyrtl or Rokitansky.

There are, at present, quite a number of American physicians here; last winter I counted about sixty at one time, who are visiting the lecture-rooms of the Allgemeine Krankenhaus, and are attending the kliniks and poliklinics in this city. Many of these American students are Bostonians.

Shortly after my arrival in Vienna, I noticed a large glass case, containing orthopædic surgical appliances and apparatus, presented to Prof. Billroth by the inventor, Dr. Chas. Fayette Taylor, of New York. I have seen similar appliances at the St. Luke's Hospital in New York, used by patients suffering from coxitis, tumor albus genu, lordosis, scoliosis, kyphosis, genu valgum, pes equinus, varus and valgus. In short, the very ingenious apparatus of Taylor for the treatment of all kinds of deformities of the human frame have been received here with great satisfaction by the profession. To testify their appreciation of the merits of Dr. Taylor, the "Gesellschaft der Aerzte," of this city, have elected him, upon the recommendation of Billroth, an honorary member of the society. At the meeting of the society mentioned, held on the 6th of March last, Prof. Rokitansky presiding, the Secretary, Dr. Auspitz, reported the receipt of several medical publications, among which was the Medical and Surgical History of the War of the Rebellion, by Surgeon-General Joseph K. Barnes, of the U. S. Army. The General kindly sent me, last year, a copy of the same work. Having perused it, I can say that it is one of the most valuable additions to the medical literature of the day, and its publication reflects great credit on the chief officer of the medical staff of the army, as well as on those who have labored with him to make this work on military surgery one of the best in the world.

In this connection, it will not be uninteresting to your readers to learn that my former schoolmate, Dr. Carl Heitzmann, the greatest living anatomical draughtsman, whose anatomical, pathological, ophthalmoscopic, histological, surgical and other drawings are famous wherever medical science is taught, has expressed to me the intention to take up his residence in the United States, probably in New York. He has never practised his profession—in a monetary sense of the word—but has devoted his whole time, his talent and energy to the production of his elegant works of art, that are known, or ought to be known, to every medical practitioner and student. Heitzmann has also studied the English language for a number of years, and speaks it fluently.

I do not wonder that so many American gentlemen come here to complete their medical education. In the first place, they can learn here the German language with ease within a year, and thus be enabled to follow the German literature without being compelled to rely upon the translations of others; in the second place, the expenditures of living need not exceed the modest sum of 800 dollars a year. For this sum, one can live comfortably, and have the pleasure of attending the lectures of such coryphei as Hebra, Langer, Voigt, Braun, Späth, Billroth, Dumreicher, Dittel, Rokitansky, hereafter, probably, Recklinghausen—in his stead as mentioned above—Stricker, Wedl, Brücke, Bamberger, Duchek, Löbl, Sigmund, Zeissl, Arlt, Jäger, Stellwag, Störk, Schrötter, Schnitzler, Pollitzer, Gruber, Benedikt, Rosenthal, Wiederhofer, Weinlechner, Monti, with their corps of learned assistants and secundarärzte, &c. Each and everyone of the gentlemen mentioned has not only contributed largely to the advancement of medical science, but they are teachers *par excellence* to prove what I say. I defy any one who has carefully attended their lectures to tell me that he has to regret having spent his time and money in Vienna without having accomplished what he wanted, viz., to gain knowledge in any specialty in the science of medicine.

* We understand, from later advices, that Prof. Recklinghausen has declined the appointment.—Eds.

I do not wish to detract in the least from the merits of the eminent gentlemen who teach medicine in America, many of whom have attained a world-wide reputation; but is it not natural that a school nearly three hundred years old, as the Vienna University is, and wholly supported by the general government, should have more material at its disposal in the shape of collections and specimens, with models of appliances and of men to use them, who are sought not only in this empire, but throughout Europe, and who are induced to come here by large salaries paid to them during their natural lifetime, than in our country, where the colleges are more or less private institutions? If our national government were to establish one or two national universities, where the professors would obtain a life-long appointment, with magnificent salaries, like those paid here, which are magnificent in consideration, of course, of the cost of living, could we not find a corps of teachers out of our fifty odd colleges in the United States without drawing from other countries?

In conclusion, I beg you, Messrs. Editors, to allow me to express my joy, through your valuable JOURNAL, at the news which I read in the *New York Medical Record*, that the New York Academy of Medicine, New York Pathological, the New York County Societies, and New York Medical Library Association have passed resolutions favoring the Army Medical Staff Rank Bill, and I hope all the other medical societies throughout the land will act in the same brotherly spirit towards the Army Medical Staff.

Very respectfully yours, RUDOLF TAUSZKY.

Medical Miscellany.

THE CANADA MEDICAL ASSOCIATION holds its seventh annual meeting at Niagara Falls, on Wednesday, August 1, 1874.

FINE OF A DRUGGIST.—A Paris druggist has just been fined 500 francs for selling, without an order from a physician, pastiles made of calomel.

DR. F. W. DRAPER has been appointed Secretary, *pro tempore*, to the State Board of Health, to perform the duties till a permanent successor to Dr. Derby has been chosen.

BRISTOL SOUTH DISTRICT MEDICAL SOCIETY.—We regret that the name of Dr. John Pierce, of Edgartown, was accidentally omitted from the list of Councillors which we published June 4th.

HYDROPHOBIA.—According to M. Bourrel, a veterinary surgeon at Paris, *canine rabies* may be prevented by blunting the canine and incisor teeth of the animal. He has tried it!

SUBCUTANEOUS INJECTION OF HYDRATE OF CHLORAL.—M. Ore condemns the subcutaneous administration of this drug, as being useless if the dose be too small, and as giving rise to abscesses if the dose be sufficiently large to produce therapeutic results.

MALPRACTICE IN VACCINATION.—The tribunal of Strasbourg has recently condemned a physician to imprisonment for one month for communicating syphilis to an infant, which he had inoculated with virus carelessly taken from the arm of another infant suffering from that affection.

HYDRATE OF CHLORAL IN NOCTURNAL INCONTINENCE OF URINE.—Dr. Vecchietti Eduardo has successfully treated several cases with this drug. He believes that idiopathic nocturnal incontinence is due to hyperæsthesia of the bladder, and that chloral acts as an anæsthetic of the great sympathetic. —*Medical Press.*

LONGITUDINAL FRACTURE OF THE HUMERUS.—A case of this rare injury is reported in the *Deutsche Zeitschrift für Chirurgie*, extending the entire length of the bone, caused by supporting a heavy ladder with the arm stretched upwards to its utmost capacity. Abscesses supervened, complicated with erysipelas, and more than two years elapsed before recovery.

ANTAGONISM OF ATROPINE AND MORPHIA.—Dr. Antonio di Bernardo recently treated a case of poisoning by atropine, occurring in an infant of six years, who swallowed an eye-wash containing about 0·042 milligrammes of atropine, by injections of chlor-hydrate of morphia. The case terminated successfully.—*Gazette Hébdomadaire*, No. 8; *Medical Press.*

THE INUNDATED DISTRICT.—Dr. Cheairs, of Arkansas, writes that in the overflowed lands along the Mississippi, the stench is almost beyond endurance. Dead mules, cows, hogs, sheep, wild game of our forests all seem to have suffered a like fate. A reasonable estimate would be to say that 200,000 people are now dependent upon the government for food.—*Medical and Surgical Reporter.*

FISSURE OF THE ANUS IN AN INFANT.—Mr. J. Hyde Houghton reports a case of fissure of the anus in a delicate child, one year and a half old, in consequence of which obstinate constipation was produced, and for some time it never had a motion of the bowels without aperients or enemata. It frequently went two or three days without relief to the bowels, and each act of defæcation was attended by violent pain, screaming and crying. The fissure was finally incised, and the operation was followed by immediate and permanent relief.—*British Medical Journal.*

A NEW METHOD FOR WHOOPING COUGH.—A medical man was suddenly called, a few days since, by an "intelligent" American woman to see her child, who was "almost suffocated in a paroxysm of whooping cough." She had "let the gas into the child's chamber, having heard that whooping cough was relieved by taking the patient to gas works, and, as that could not be conveniently done, had adopted this way to get the same effect."! She said "the child grew worse almost at once."! "Oh judgment! thou hast gone—"

ARSENIC POISONING BY A GREEN CARPET.—At a recent meeting of the Swedish Medical Society of Stockholm, Dr. Kjellberg related the case of a young man, who, having manifested symptoms of arsenic poisoning, was sent away to travel. During the following year, he enjoyed perfect health, but, having at length returned home, he began to suffer, shortly after, in the same manner as before. Suspicion was now directed to a green carpet upon the floor of his chamber, and an analysis revealed the fact that there was contained in the coloring matter a very considerable quantity of arsenic. The removal of this carpet was followed by an immediate disappearance of all the morbid symptoms.—*Hygeia, Stockholm*, Oct., 1873.

DIED,—In this city, 20th inst., George Derby, M.D., aged 55.

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending June* 13, 1874.

Boston, 108; Worcester, 8; Lowell, 17; Milford, 3; Chelsea, 6; Cambridge, 20; Salem, 6; Lawrence, 9; Springfield, 8; Lynn, 6; Gloucester, 5; Fitchburg, 5; Newburyport, 6; Somerville, 7; Fall River, 12; Haverhill, 3; Holyoke, 7. Total, 236.

Prevalent Diseases.—Consumption, 44; pneumonia, 22; scarlet fever, 15.

DEATHS IN BOSTON for the week ending Saturday, June 20th, 113. Males, 58; females, 55. Accident, 5; aneurism, 1; apoplexy, 1; asthma, 1; anæmia, 1; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 1; cancer, 3; cholera infantum, 2; cholera morbus, 1; consumption, 26; convulsions, 2; croup, 1; debility, 1; diarrhœa, 5; dropsy, 1; dropsy of the brain, 3; drowned, 2; diphtheria, 1; erysipelas, 1; scarlet fever, 1; typhoid fever, 3; "typho-malarial" fever, 1; disease of the heart, 5; homicide, 1; intemperance, 1; perforation of the intestines, 1; disease of the kidneys, 3; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 11; marasmus, 4; measles, 2; old age, 2; premature birth, 3; puerperal disease, 3; scalded, 1; suicide, 1; teething, 1; whooping cough, 3.

Under 5 years of age, 43; between 5 and 20 years, 7; between 20 and 40 years, 35; between 40 and 60 years, 12; over 60 years, 16. Born in the United States, 76; Ireland, 24; other places, 13.

Supplement to the
Boston Medical and Surgical Journal.

THE PRIZE ESSAYS OF THE

BOYLSTON MEDICAL SOCIETY,

FOR 1874.

I.
EXPERIMENTS ON THE ACTION OF BILE IN PROMOTING THE ABSORPTION OF FATS.

II.
ON INTESTINAL DIGESTION.

[The experiments in both the following Essays were performed in the laboratory of Dr. H. P. Bowditch, Professor of Physiology in the Harvard Medical School.]

EXPERIMENTS ON THE ACTION OF BILE IN PROMOTING THE ABSORPTION OF FATS.

By Charles H. Williams, A.B., of Boston.

The Essay to which was awarded the First Prize of the Boylston Medical Society for 1874.

A number of experiments have been made, to prove that the presence of bile in the intestines favors the absorption of fat. Bidder and Schmidt* "fed a healthy dog with a carefully-ascertained amount of fat. By examination of its fæces, it was found to have absorbed 11.1 grammes for each kilogramme of its weight. Another dog, in which biliary fistula had been established, was similarly fed; the animal was allowed to lick some of the bile from the wound, and it was proved that but 2.24 grammes of fat had been absorbed for each kilogramme of weight. In a third, in which all access of bile to the intestine had been cut off, only 1.56 grammes was absorbed." Brodie† states that, after tying the common bile duct on young cats, no chyle was to be found in the lacteals and thoracic duct. Tiedmann and Gmelin‡ find that the fat absorption is diminished, but not entirely stopped under these circumstances. Ludwig§ says: "The proof of the diminished absorption of fat during the obstruction to the inflow of bile is shown by this, that the chyle coming from the small intestine is poorer in fat, and the fæces are correspondingly rich in fat." Kühne‖ gives an experiment, in which a healthy dog was carefully fed with fat, until it began to appear in the fæces. The quantity which he was taking was then noted, a biliary fistula was made, and it was then found that the quantity of fat which could be given without having any appear in the fæces was very much smaller than before.

Such, then, being the established fact, how is it to be explained? Marshall¶ says: "It certainly does not appear to act chemically, by decomposing, or dissolving neutral fats, nor does it make, with oily matters, a permanent emulsion." The object of this paper, however, not being to discuss any chemical relation of the bile, we leave the point with this statement.

Another way in which bile may aid in the passage of fats into the lacteals, is by a mechanical influence of some kind. Wistinghausen** states, in beginning an account of some experiments on this subject: "The first (bile), attracted more strongly by the membranes, carries, mechanically, the particles of oil adhering to it, without having previously changed their chemical constitution." These experiments seem to have been the fullest and most complete which have yet been made on this subject. His apparatus and method was this:†† "A glass tube, six feet long, was bent so as to have one part shorter than the other; over the short (leg) was stretched a freshly-dried, thin mucous membrane, from an ox intestine. Through the long leg, the tube was filled with the liquid in question, the air removed by proper

* Marshall's Outlines of Physiology, p. 557.
† Quarterly Journal of Science and the Arts, January, 1823, p. 341.
‡ Verdauung, ii. p. 47.
§ Lehrbuch der Physiologie, ii. p. 658.
‖ Lehrbuch der physiologischen Chemie.
¶ Marshall's Outlines of Physiology, p. 556.
** Reichert und Du Bois Reymond's Archiv, 1873, No. 2, p. 130.
†† Ibid., p. 141.

means, and mercury, employed to obtain pressure, was poured into the long leg, until the fluid began to pass through the membrane on the short leg; then the height of the mercury was measured." In some later experiments, a larger tube was fitted round the end of the short leg, to form a cell, in which liquid could be placed.

Being led to make some experiments to illustrate the same points, the author desired to repeat the experiments of Wistinghausen; but as his methods were not fully explained, it was impossible to do so. For instance, he gives a number of experiments, in which oil came through a membrane with so many m.m. of mercury pressure; but he does not state whether the time was the same in each case, or not. Again, it is not stated in what way the mercury was poured into the long leg; whether in a constant stream, until the oil appeared through the membrane, or whether, after pouring in a certain amount of mercury, he waited, and then added more, and so on. No mention of time is made, in connection with his experiments, until we reach the ninth page of his essay, when we begin to have given the time required for the passage of the oil, with a certain pressure of mercury.

The following apparatus was, therefore, constructed. Over the lower ends of two glass tubes, parchment was stretched. The upper ends were connected with a pressure bottle, arranged in the following way: Into a Wolf bottle, was poured some mercury; through one neck was fitted a tube, which dipped beneath the mercury; the tubes were connected with another neck, and, through the third opening, water was forced in, thus compressing the air above, the pressure being shown by the rise of the mercury in the tube. When the required height was reached, the water was allowed to dribble in just fast enough to make up for leakage and the outflow through the tubes.

The object, then, was to note the difference in time, required to force oil through a membrane moistened with bile, and one wet with water, the pressure remaining the same. For this purpose, one piece of parchment was moistened with bile, the other with water; these tied securely over the ends of the tubes, oil poured into each tube, and pressure applied. After making eleven experiments with parchment, parchment-paper and hog's bladder, it was found that the results were not entirely consistent, that the different pieces of membrane were apt to vary in texture, and that it was difficult to prevent leakage. A membrane was then sought for which should be entirely homogeneous, and an apparatus which would admit of ready adjustment, and prevent leakage. The following apparatus was then constructed. A piece of brass tube, about a foot long, was bent to a U shape, one arm being longer than the other. To the top of the shorter arm, was soldered a brass plate, having a hole in the centre; upon this was placed a similar plate; the two were then ground to fit, and held together by four screws. The whole was held by a suitable stand, so that the plates were horizontal. To the longer arm, a pipe was tightly fitted, which connected the tube with a pressure apparatus, consisting of the ordinary arrangement of two bottles, the mercury in that which is placed on the higher level, running into the other, and compressing the air in it. The amount of pressure was indicated by a manometer tube.

In using this apparatus, the following order was followed. The

brass tube was first filled with the oil, or emulsion, which it was desired to pass through the membrane, until the oil was on a level with the lower brass plate. Next, the membrane, dry, or previously soaked in some fluid, was laid on the brass plate, no air coming between the membrane and the oil. The second plate was then put on and screwed down ; and if the membrane had been previously wet with any fluid, a few drops of that fluid were placed upon it, to make sure that it should be kept moist. Next, the pressure apparatus was connected with the brass tube, clamped on, and the bottle of mercury raised until the manometer tube showed the requisite pressure. The time was then noted. After this, the membrane was watched with a Hartnack microscope (objective 2, eye-piece 3), placed vertically over it, until the drops of oil were seen coming through, when the time was again noted. The difference between the times, gave the minutes and seconds required for the oil to penetrate the membrane.

In the first experiments, parchment paper was used as the membrane. The small squares were all from the same sheet of paper. The following results were obtained:

I.—*Experiments with dry Parchment Paper.*—Pure olive oil was placed in the tube, and, in the first series, *no pressure* was used, the time being noted when the first glistening lines of oil appeared on the paper. The numbers indicate the minutes and seconds required for oil to come through the membrane.

First Series.—Time, 7′,30″; 11′; 11′,15″; 6′,45″; 10′; 10′; 12′,15″; 8′,15″; 11′. Temperature, 65° Fahr.

Second Series.—Seven and a half centimetres of mercury pressure. Time, 3′,15″; 3′; 3′; 4′; 3′; 2′,30″; 4′; 2′,45″; 3′,15″. Temperature, 70° Fahr.

Third Series.—Same pressure (seven and a half centimetres); temperature, 60° Fahr. Time, 6′; 5′,30″; 5′; 6′; 4′,45″; 5′; 5′,15″; 6′,30″.

Fourth Series.—Fifteen centimetres of pressure. Temperature, 68°. Time, 3′; 3′,45″; 3′; 3′,30″; 4′; 2′,30″; 4′,25″; 3′,30″; 3′,15″; 3′; 4′,45″.

Fifth Series.—Thirty centimetres of pressure. Temperature, 64°. Time, 2′,57″; 3′,10″; 3′; 2′; 2′; 2′,50″; 2′,10″; 2′,10″; 2′,55″.

II.—*Experiments with Parchment Paper Wet with Water.*

First Series.—Fifteen centimetres of pressure. Temperature, 68°. Time, 14′,20″; 12′; 12′; 17′; 11′.

Second Series.—Thirty centimetres of pressure. Temperature, 67°. Time, 4′,30; 6′,10″; 4′,20″; 8′, 20″; 6′; 6′; 3′,50″; 5′,45″; 3′30″; 5′,45″.

III.—*Experiments with Parchment Paper Wet with Bile.*

First Series.—Fifteen centimetres of pressure. Temperature, 64°. Time, 4′; 4′,20″; 4′,45″; 3′,55″; 3′,45″; 3′,05″.

Second Series.—Thirty centimetres of pressure. Temperature, 66°. Time, 1′,45″; 2′,00; 1′,48″; 1′; 1′,05″; .45″; 1′.

Table A.—Parchment Paper used as the Membrane.

Pressure of Mercury in c. m.	Membrane Dry.			Wet with Water.			Wet with Bile.		
	No. of Exp.	Average.	Variation.	No. of Exp	Average.	Variation.	No. of Exp.	Average.	Variation.
0	9	9′,46″	5′,30″						
7½	17	4′,17″	4′,						
15	11	3′,31″	2′,15″	5	13′,16″	6′,	6	3′,58″	1′,40″
30	9	2′,35″	1′,10″	10	5′,25″	4′,50″	7	1′,20″	1′,15″

(Note.—When the membrane was used wet, the surfaces were wiped of superfluous fluid, just before placing the membrane on the oil.)

From these experiments, it will be seen that, with each pressure, oil came through a membrane moistened with bile faster than when it was moistened with water, though not so fast as when dry. There was found, however, to be a great variation between the different experiments at the same pressure, and at times the oil would well up rapidly through some thin spot of the paper, before it had appeared on any other part. Also, on removing the oil from some of the pieces, by soaking in ether, drying, and repeating the experiments, the results were very unsatisfactory.

A new membrane was therefore sought for, which should be as homogeneous as possible, and sufficiently porous to admit of oil passing through without much difficulty. As the membranes through which absorption takes place must be supposed to contain minute, capillary spaces, through which the fats find their way, an endeavor was made to construct an artificial membrane or substance, which should consist mostly of minute capillary spaces. For this purpose, sheets were made of plaster of Paris, the thickness being reduced until one millimetre was reached. They were prepared by pressing out this fluid plaster between pieces of thick plate glass, separated from each other one millimetre. When quite firm, the plaster was removed, and, while translucent, all portions containing air-bubbles were marked; the cake was then dried, and cut into squares for use. Twenty experiments were then made with different sheets of dry plaster, the oil having a pressure of fifteen centimetres of mercury.

It was now found, however, that, to obtain uniform results, the plaster must always be made with the same proportion of water; otherwise, when more water was used, the pores were rendered larger, and the oil came through more readily. The following experiments were all made with squares from one sheet of plaster. Thin plaster was used as the membrane (Sheet I.), and pure olive oil was placed in the brass tube. In the first series of experiments, with no pressure, the capillary force was not sufficient to bring any amount of oil to the upper surface, so the time was taken when the first glistening lines appeared.

IV.—*Experiments with Dry Plaster.*

First Series.—No pressure. Temperature, 62°. Time, 5′,50″; 6′, 30″; 6′,15″; 6′,15″.

Second Series.—Seven and a half centimetres pressure. Temperature, 54°. Time, 4′; 3′,50″; 4′,10″; 3′,45″.

Third Series.—Pressure, fifteen centimetres. Temperature, 62°. Time, 3′,20″; 3′,10″; 3′,30″; 3′,05″; 3′,15″.

Fourth Series.—Pressure, thirty centimetres. Temperature, 62°. Time, 1′,50″; 1′,52″; 1′,54″; 1′,32″.

V.—*Experiments with Plaster Wet with Water.*

Pressure, thirty centimetres. Temperature, 62°. No oil in 40 minutes; no oil in 45 minutes. After two hours and three quarters, a few drops appeared.

VI.—*Experiments with Plaster Wet with Bile.*

Pressure, thirty centimetres. Temperature, 64°. Time, 10′,30″; 8′; 9′,25″; 8′,45″; 10′,20″.

Table B.—Thin Plaster (Sheet I.) used as the Membrane.

Pressure of Mercury in c. m.	Membrane Dry.			Wet with Water.			Wet with Bile.		
	No. of Exp.	Average.	Variation.	No. of Exp.	Average.	Variation.	No. of Exp.	Average.	Variation.
0	4	6′,12″	0′,40″						
7½	4	3′,56″	0′,25″						
15	5	3′,16″	0′,25″	No oil in 40 minutes.					
30	4	1′,47″	0′,22″	" " " 45 "			5	9′,24″	2′,30″
				3, few drops after 2¾ hrs.					

The next series of experiments were made with another sheet of plaster (Sheet II.).

VII.—*Experiments with Dry Plaster.*

First Series.—Pressure, fifteen centimetres. Temperature, 64°. Time, 3′,11″; 3′; 3′; 2′,35″; 2′,45″; 2′,55″.

Second Series.—Pressure, thirty centimetres. Temperature, 64°. Time, 2′,14″; 2′,10″; 1′,56″; 2′,02″; 2′,04″; 2′.

VIII.—*Experiments with Plaster Wet with Water.*

First Series.—Pressure, seven and a half centimetres. No oil after twelve hours.

Second Series.—Pressure, fifteen centimetres. No oil after 6 hours. After 23 hours, a large amount.

Third Series.—Pressure, thirty centimetres. After 3½ hours, there was a thin layer over the plaster. After 4½ hours, a small amount had come through.

Fourth Series.—(a) Pressure, forty-five centimetres. After one hour and five minutes, one drop appeared on the surface of the plaster; at one hour and thirty-five minutes, about twelve drops had come through; in two hours, quite a number of drops.

(b) After one hour and ten minutes, one drop; one hour and twenty minutes, a number of drops; one hour and fifty minutes, the surface of the plaster was thickly dotted over with them.

Fifth Series.—Pressure of sixty centimetres. Time, 1 hour and 2 minutes; 1 hour; 50 minutes.

IX.—*Experiments with Plaster Wet with Bile.*

First Series.—Pressure, fifteen centimetres. After 2 hours, a little oil appeared. After 2¼ hours, a little oil appeared.

Second Series.—Pressure, thirty centimetres. Time, 20′; 19′,20″; 20′,10″; 19′,30″; 19′,18″; 20′; 20′; 19′,30″; 19′,20″.

Third Series.—Pressure, forty-five centimetres. Time, 13′; 12′,20″; 14′,30″; 15′,30″

Fourth Series.—Pressure, sixty centimetres. Time, 8′; 7′; 7′;

Table C.—Thin Plaster (Sheet II.) used as the Membrane.

Pressure of Mercury in c. m.	Membrane Dry.			Memb. Wet with Water.			Memb. Wet with Bile.		
	No. of Exp.	Average.	Variation.	No. of Exp.	Average.	Variation.	No. of Exp.	Average.	Variation.
7½				1; no oil after 12 hours.					
15	6	2′,54″	0′,36″	No oil after 6 hours; after 23 hours, large amount.			After 2 h., a little oil. " 2¼ " " " "		
30	6	2′,04″	0′,18″	3½ hours, thin layer.			9	19′,41″	0′,52″
45				4½ " small amount. 1 h. 50′, number of drops.			4	13′,50″	3′,10″
60				2 " " "			3	7′,20″	1′
				2 | 57′ | 12′					

In these experiments, the bile was taken from an ox, killed only a few hours before; it was neutral to test paper, and had a specific gravity of 1023.

In all cases in which the membrane was moistened with bile, when the oil began to come through, it appeared in very finely-divided particles, just visible by the microscope, giving in mass the appearance of a whitish cloud rising from the surface of the plaster.

On the other hand, when the membrane was moistened with water, the oil came through, forming a small globule, which gradually enlarged. Finally, when it had reached sufficient size for its specific gravity to free it from its adhesion to the plaster, it rose to the top of the water, which covered the membrane.

All the previous experiments were made with olive oil; a few were now tried with different emulsions, but with uncertain results. The oil seemed to come through first, and when the emulsions were colored, most of the coloring matter was retained on the under surface of the plaster.

Rabbit's bladder was also tried for the membrane; but this could not be procured in sufficient quantity to give any extended series of experiments.

What, then, can we infer from these results?

1. That when a membrane is wet with bile, it allows oil to pass through more easily than when it is wet with water.

2. That, as the pores of the plaster cannot be supposed to change their shape, being made of a perfectly inelastic material, therefore bile cannot favor the passage of the oil by affecting any such change of form in the pores.

3. That, as the oil is more finely divided when it has passed through plaster moistened with bile than when it is wet with water, or used dry, therefore the bile must have some influence in effecting this.

Ludwig* makes the following statements, which have some bearing on these facts: "The assistance which the bile renders to the passage of fat is best explained by this, that the obstruction which the pores oppose to the passage of fats is diminished.

"This (conclusion) can be reached in various ways; for example (a), by this, that the bile, pressed into the thin, mucous membrane, alters the form of the pores, and lessens the firmness of the tissues; or (b), that it makes the surface of the pores more slippery, so that the friction between the oil and the walls of the pores is lessened; or (c), that it makes the fat drops more capable of adapting themselves to the form of the porous canals, in that it diminishes the so-called drop-tension of the fats." The first of these explanations we have eliminated by the use of plaster as the membrane; the third seems likely, on account of the finely-divided appearance of the fat which comes through bile; and the second, although we have no proof of it, seems probable.

It may be said that, although the previous experiments show that oil goes through faster when the membrane is wet with bile than when it is moistened with water, yet that this does not prove that if some other liquid were used it would not go through faster still. The following experiments were performed to examine this point.

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* Lehrbuch der Physiologie, ii. page 658.

The whole series was made from pieces of the same sheet of plaster (Sheet III.).

X.—*Experiments with Dry Plaster* (made to be able to compare the times which this sheet of plaster gives with the times of the other sheets).

First Series.—Pressure, fifteen centimetres. Temperature, 65°. Time, 3′,35″; 3′,45″; 3′,15″.

Second Series.—Pressure, thirty centimetres. Temperature, 65°. Time, 1′,40″; 1′,55″; 2′; 1′,55″.

Third Series.—Pressure, forty-five centimetres. Temperature, 62°. Time, 1′,25″. 1′,50″; 1′,25″; 1′,45″; 1′,23″.

Fourth Series.—Pressure, sixty centimetres. Temperature, 62°. Time, 1′,05″; 1′; 1′,10″; 1′,07″.

XI.—*Experiments with Plaster wet with Bile which had been made Alkaline with a Solution of Soda.*

Pressure, sixty centimetres. Temperature, 64°. Time, 3′,50″; 3′, 52″; 3′,30″.

XII.—*Experiments with Plaster wet with a one per cent. Solution of Soda.*

Pressure, sixty centimetres. Temperature, 60°. Time, 3′,20″; 4′; 3′,45″; 4′,30″; 4′.

XIII.—*Experiments with Plaster wet with fresh Ox Bile.*

Pressure, sixty centimetres. Temperature, 65°. Time, 4′,40″; 4′, 50″; 5′,10″.

XIV.—*Experiments with Plaster wet with Bile made Acid by Hydrochloric Acid.*

Pressure, sixty centimetres. Temperature, 57°. Time, 5′,10″; 5′, 45″; 5′,15″.

XV.—*Experiments with Plaster wet with Bile made Acid by Acetic Acid.*

Pressure, sixty centimetres. Temperature, 57°. Time, 6′,30″; 5′, 42″; 5′,20″; 6′.

XVI.—*Experiments with Plaster wet with Water.*

Pressure, sixty centimetres. Temperature, 65°. Time, 6′,40″; 6′, 15″; 6′,30″.

XVII.—*Experiments with Plaster wet with Hydrochloric Acid (one per cent.).*

Pressure, sixty centimetres. Temperature, 65°. Time, 9′; 8′,45″; 9′,30″.

Table D.—Thin Plaster (Sheet III.) used as the Membrane.

Pressure of Mercury in c. m.	Membrane Dry.			Memb. Wet with Water.			Memb. Wet with Bile.		
	No. of Exp.	Average.	Variation.	No. of Exp.	Average.	Variation.	No. of Exp.	Average.	Variation.
15	3	3′,32″	0′,30″						
30	4	1′,53″	0′,20″						
45	5	1′,33″	0′,27″						
60	4	1′,05″	0′,10″	3	6′,28″	0′,25″	3	4′,53″	0′,30″
	Wet with Soda Solution (1 per cent.)			Wet with hydrochloric acid (1 per cent.)			Wet with bile made alkaline with soda solution.		
60	5	3′,55″	1′,10″	3	9′,05″	0′.45″	3	3′,44″	0′,22″
	Wet with bile made acid by hydrochloric acid.			Wet with bile made acid with acetic acid.					
60	3	5′,23″	0′,35″	4	5′,53″	1′,10″			

Or, arranging them in the order of their time, we get:—

Oil through dry plaster (60 centimetres pressure),	1′,05′
" " plaster wet with alkaline bile (60 centimetres pressure),	3′,44″
" " " " " solution of soda (1 pr. ct.) (60 centimetres pressure),	3′,55″
" " " " " bile " " "	4′,53″
" " " " " hydrochloric acid and bile " " "	5′,23″
" " " " " acetic acid and bile " " "	5′,53″
" " " " " water " " "	6′,28″
" " " " " hydrochloric acid (1 pr. ct.) " " "	9′,05″

From these experiments we find that when the membrane is moistened with an alkaline fluid, fats go through quicker than with bile, water or acid; and that the addition of alkali to the bile allows the fat to pass in the shortest time of all. In the small intestine, we have two alkaline fluids poured out, the pancreatic and intestinal juices; these soon render the chyme, which comes down from above, alkaline. Now, if it is allowable to argue from results obtained from inorganic capillary tubes, what the action would be in organic pores, it would seem to follow, from the previous experiments:—

First, that, when the bile is mixed with the alkaline fluids of the intestine, its power of promoting fat absorption will be greatest.

Secondly, that, if either the bile or the alkaline fluids be prevented from entering the intestine, still a certain amount of fat absorption will take place; for if the bile alone flows in, it will exert its specific influence in aiding the mechanical passage of the fats, and if the alkaline fluids only enter, considerable fat will still penetrate the walls, aided by the alkalinity of the fluid, even if there were no other action. These suggestions seem to be sustained by previous experiments, for it has been found that, when all bile was cut off from the intestine, still some fat was absorbed; and, also, when a pancreatic fistula was made, considerable fat was still found in the lacteals—more in amount in the last case, perhaps, because there was still the alkaline intestinal juice, which could not be cut off.

To conclude, we have endeavored to show, by new experiments, and methods differing somewhat from those which have been tried before:—

1. That the passage of neutral fats, through capillary canals or pores, is favored by the presence of bile in those pores.

2. That this action is increased when the bile is rendered alkaline, and diminished when it is acid.

3. That the action cannot be due to the bile changing the form of the pores.

4. That, after passing through membranes moistened with bile, the fats appear more finely divided than with membranes wet with other substances, apparently showing that the drop-tension or cohesion of the fat has been affected.

INTESTINAL DIGESTION.

By G. M. Garland, A.B., of Lawrence.

The Essay to which the Second Prize of the Boylston Medical Society was awarded.

Although those who are familiar with the processes of digestion admit that the intestinal juices are important auxiliaries to the performance of that function, yet I venture that the ideas of many will be startled by the recently advanced opinions of Bernard, who states that when the food has escaped from the stomach and become impregnated with the bile, digestion has yet to begin. At this stage of the proceedings, a greater part of the aliments remain unaltered. A small portion of the albuminoids only have been transformed, but the first result of the contact of the bile is to annul that transformation and to precipitate a part of the peptones already formed. "It is, then, in an insoluble form," he says, "that the aliments present themselves before the agents of the intestines which must digest them really and definitely."

This opinion of Bernard is based upon a series of complicated experiments, undertaken by many physiologists with the view of differentiating the functions peculiar to the several secretions of the alimentary canal. Among the intestinal agents, Bernard includes the pancreatic juice as well as the intestinal secretions proper, for he says that it is by the intervention of the pancreatic juice that digestion really begins. I desire, in this paper, however, to illustrate some of the experiments which have been made upon the pure intestinal juice, from which it will be seen that a great diversity of opinion exists among different observers as to the solvent power of that secretion upon the various types of food.

There exist, in the intestinal mucous membrane, four sets of glands, viz.: the solitary glands, Peyer's patches, Brunner's glands and Lieberkühn's follicles. Peyer's patches are merely small colonies of the solitary glands or vesicles, and are ordinarily closed, though they are sometimes found open in the pig (Krause), and also in the human intestine (Allen Thompson). Kühne states that they do not appear to contribute anything to the intestines, except under pathological conditions; but Bernard says they secrete mucus. On the other hand, Brücke has demonstrated that they are small lymph glands, and, hence, have no participation in the performance of digestion.

Brunner's glands are peculiar to the duodenum, and were formerly supposed to correspond to the pancreas in secretion as well as in structure. From recent experiments, however, Bernard concludes that the secretion of these glands possesses no other chemical properties than those of mucus. He says they are analogous to certain agglomerations of muciparous glandules found in the pharynx of the horse, and that their only function is to facilitate the impregnation of the chyme by the bile and pancreatic juice. Lieberkühn's follicles are found throughout the entire length of the intestine, and to them is attributed the function of secreting the intestinal juice proper. It is worthy of remark, however, that Schiff observed that the fluid obtained from a fistula which was located in the duodenum gave more positive digestive results than if the fistula were established lower down in the ileum. From this, we may infer either that Brunner's glands are an

auxiliary in the one case, or that the strength of the secretion of Lieberkühn's glands diminishes as we recede from the duodenum.

The difficulty of determining the function which pure intestinal juice serves in the process of digestion may be understood only when one has considered the difficulty of eliminating from the problem all the extraneous contributions of neighboring organs and of reducing to a minimum the inevitable derangement of the functional integrity of the abdominal organs which follow mechanical interference. So important is this latter factor alone, that Hoppe-Seyler, in apparent despair, says that until we can positively establish the normal condition of the secretion of the intestinal mucous membrane, all experiments must remain without trustworthy results.

Among the early investigators of the subject, Frerichs endeavored to obtain the action of the pure secretion by including a loop of the intestine between two ligatures, washing it out carefully, and then introducing food for digestion. Zander passed a piece of cork into the duodenum below the pancreas, and then tied a ligature about both intestine and cork. Other experimenters adopted similar manœuvres, but their results are of value only as demonstrating the futility of the means they employed for eliminating the secretion of the organs above. By the showing of Schmidt and Zander themselves, the analysis of the juice which they obtained discovered an obvious proportion of gallic acid salts and other imported ingredients.

In 1858, Prof. W. Busch was so fortunate as to have under his observation a woman who had been gored by a bull in such a manner that two fistulæ were established in the small intestine. The right fistula communicated with the stomach by a short section of the intestine, while the second opening, removed a few inches to the left, was connected with the anus by the major part of the intestine. As a result of the inflammation consequent upon the injury, one end of the bit of intestine between the two orifices became sealed up so as to form a cul de sac, and thereby render impossible any communication between the upper and lower portions of the intestine. All the ingesta, therefore, escaped from the right fistula, which constituted an artificial anus. Owing to the small amount of intestine available to the woman, she emaciated with terrible rapidity, and was possessed of so ravenous an appetite that she would continue eating while the food was pouring out of the hole on the right. Busch experimented by introducing free food into the left fistula and allowing it to escape naturally, or by enclosing it in a net bag that he might be able to withdraw it again. He says, in substance, that the amount of the intestinal secretion was only sufficient to moisten the intestinal walls. It changed starch into sugar, and converted cane sugar into grape sugar. It decomposed protein bodies, but with the appearance of putridity and odor of ammonia. The bits of meat which he introduced free into the fistula were entirely dissolved before reaching the anus, though the meat held in the bag was not so completely decomposed. The secretion did not apparently affect fats, as the latter were unabsorbed unless mixed with gall.

Busch did not find the temperature of the abdominal viscera increased during digestion. Braune, however, who had a somewhat similar case of fistula under his charge, noticed an increase of four-tenths of a degree in the temperature of the intestines during digestion. Both

Busch and Braune agree that the secreting glands of the intestine have alternate periods of activity and repose.

The first real advance was made in this investigation by Thiry, when he succeeded in isolating a portion of the small intestine. The method he pursued was as follows: He took a dog which had been fasting at least twenty-four hours, and opened its abdominal cavity by an incision about two inches in length along the linea alba and below the umbilicus. Drawing out therefrom a loop of the intestine, he excised from it a piece ten to fifteen centimetres long, taking care not to sever the piece from the mesentery, or any of its vessels and nerves. Turning aside the isolated piece, he reëstablished the continuity of the intestinal tract by bringing together with sutures the cut ends of the part above and the part below, and then replaced the intestine, minus fifteen centimetres, in the abdomen. Taking up again the isolated piece, he closed one end of it by sutures, and thus made a blind sac of it. He then passed the blind end of the loop into the abdomen, and stitched the open end or mouth of the bag to the edges of the incision in the abdominal walls. If the animal did not die of peritonitis in a few days, he says, the wound generally healed in fourteen days, leaving only a fistulous opening, from which the intestinal juice could be collected.

Thiry experienced a serious obstacle to the establishment of a permanent fistula from the liability of the isolated piece to prolapse. This prolapse occurred in two ways. Either the inner end would become introverted, and, finally emerge from the outer opening, followed by the whole length of the piece, or the outer end would become everted, as in case of prolapsus recti. To avoid these casualties, he made a "bias," so to speak, in the outer end of the loop, which contracted the orifice sufficiently to retain the parts in place, but had the disadvantage of preventing the free egress of the secretion or the ready introduction of food or sponges.

After the healing of the wound, he observed that the fistula did not ordinarily secrete much, unless the mucous membranes were irritated, mechanically, by the insertion of sponges, catheters, or weak hydrochloric acid, or by the application of the induced current. By the assistance of such irritants, he obtained from his fistula four grammes of secretion in an hour. At this rate, a dog would secrete, from the entire length of his intestine, about three hundred and sixty grammes of juice during the five hours allowed him for the digestion of his dinner. The irritation of the vagus nerve by electricity occasioned no secretion, and he inferred that the action of Lieberkühn's glands was governed by the sympathetic system.

Thiry describes the secretion which he obtained as a thin, clear, yellow fluid, strongly alkaline, with an average specific gravity of 1.0115. It gave a precipitate of albumen on being acidified and boiled. An analysis of 1,000 parts of the juice gave: water, 975.85; inorganic salts, 8.79; albuminates, 8.02; other organic materials, 7.34.

As regards the digestive virtues of the pure secretion, Thiry's experiments were almost negative. He says that fats, starch, coagulated white of egg, red muscle and glue were not digested, either within or without the fistula. Fibrin was digested in the natural alkaline solution, but remained unaffected if the juice were acidified or even neutralized. In order to assure himself as to the structural integrity of the isolated piece, he made microscopic examinations after the death

of the animals, but could detect no difference between the structure of the fistula and of other parts of the intestine contiguous to it. He concluded, therefore, that to be of any value, the intestinal secretion must be associated with the other digestive fluids.

As a point of collateral interest, it may not be amiss to mention here the influence of certain drugs upon the isolated loop. Thiry gave the dog at one time a strong dose of sulphate of magnesia, and again a pill of pulverized senna leaves. Both doses produced active catharsis, but did not affect the isolated piece. An injection of a solution of either of the drugs into the loop itself produced no more effect than an injection of distilled water. Six drops of croton oil rubbed upon the dog's abdomen produced vomiting and purging, but had no influence upon the fistula. He reasons, therefore, that these drugs produce catharsis by so exciting peristaltic action that the intestines are emptied of their contents before time has been allowed for the customary reäbsorption of the fluids of the chyme.

Dr. W. Leube reviewed Thiry's experiments, and agreed with the latter that the intestinal juice does not convert starch into sugar. He succeeded, however, in changing cane sugar into grape sugar, and, also, induced an acid fermentation. This fermentation, however, he attributed to the presence of vibriones, as it only occurred when these animalcules were present. In this connection, however, it will be remembered that Bastian asserts that vibriones are one of the products of, rather than the cause of, fermentation.

Leube says that raw fibrin dissolves slowly, and without swelling. He conducted his fibrin experiments by subjecting a couple of shreds of fibrin to the action of five to ten centimetres of intestinal juice for ten to sixteen hours in a digesting oven. The solution was then diluted to double its volume, heated to the boiling point, and acidified with acetic acid to precipitate the albumen. When no more precipitate was formed on further addition of acid, he filtered the fluid and tested the filtrate for peptones. The following are the principles upon which he relied for proving the absence or presence of peptones:

A. The peptones are not precipitated by heating.

B. A solution of peptones, heated with nitric acid in excess, assumes a yellow color, which becomes still deeper on the addition of ammonia (xanthroprotein test).

C. If a solution of the protonitrate of mercury be combined with a solution of peptones and boiled, and then a few drops of nitrous or nitric acid be added, a dark red color will result (Millon's reaction).

D. If the peptone solution be mixed with soda, and a few drops of sulphate of copper, it will form a rose-red color, which gradually passes into a violet color on the further addition of sulphate of copper. If the amount of peptones is considerable, the play of colors will take place more slowly, and requires more of the copper salt.

E. If the ferrocyanide of potash be added to the peptone solution, it produces a turbidity which amounts to a precipitate on heating.

F. Sesquichloride of iron causes a whitish yellow precipitate, which dissolves in an excess of the reagent.

Leube states that, measured by these tests, no other albuminoid substance than fibrin was digested.

Schiff declared that a fistula, to be successful, must be located in the duodenum. In one so situated, he succeeded in digesting fresh

casein, fibrin, and cooked or fresh meat. Starch was converted into sugar as readily as by the pancreatic juice, and oils were emulsified. In other parts of the small intestines, these results were more or less modified. He noticed an evident derangement in the circulation of the isolated part in one instance, and twice discovered atheromatous degeneration in the walls of the vessels of the fistulæ. He remarks that the intestinal villi persisted after the operation, and hence could not owe their existence to the influence of the gall or pancreatic juice.

Wittich rejected Thiry's method, and chose, in preference, a glycerine infusion of the mucous membrane of the intestine, which had been previously washed out by a stream of distilled water. He only experimented on two animals, a porpoise and a rabbit. In both cases, he obtained negative results with fibrin, and in only the first case did he succeed in converting starch into sugar.

In an interesting article upon certain ferments which change starch and cane sugar into grape sugar, Dr. Victor Paschutin relates his experience with intestinal juice. In making a fistula by his method, which is somewhat modified from Thiry's, the hair must be carefully removed from the abdomen of a dog, and an incision, three to five centimetres long, made in the linea alba, between the ensiform cartilage and the umbilicus. The duodenum may be easily recognized and drawn out, as it has no mesentery (Quain). Two ligatures should be passed around the duodenum, close together, and about two and a half centimetres below the pancreas. The intestine may then be severed between the ligatures, and the upper portion replaced in the abdomen.

Owing to the difficulty of following down the jejunum, Paschutin resorted to the expedient of grasping a loop of the intestine haphazard between his thumb and finger, and then injecting the portion above with water. By this means, he could easily follow up the distended gut from his fingers to the jejunum, which is readily recognized by its short mesentery. Here the process of ligaturing and cutting is repeated, and we have a loop consisting of the lower part of the duodenum and the jejunum. The ligatured ends of the upper part of the duodenum and lower part of the jejunum must then be cut away, and the continuity of the intestine restored by sutures. The inner end of the loop, which is everted by the contraction of its external muscular coat, must be inverted so as to approximate the edges of the serous coat, and stitched in order to form a cul de sac. The outer end is then stitched to the edges of the abdominal wound, which is closed up to the intestine. The minor details of the operation for the prevention of hæmorrhage or other casualties will be too obvious to require specification here. The advantage of Paschutin's fistula over that of Thiry's depends upon the fact that it is much longer, and that it is fixed by the short mesentery of the jejunum, which renders prolapse of the part impossible.

On account of greater convenience in collecting a large amount of digestive fluid, and of comparing experiments with different animals, and because the fistula is inapplicable to some animals, as to the young, for instance, Paschutin prepared water infusions of the intestinal mucous membrane in the following manner. Having bled an animal to death, he removed the intestines, and washed out all their contents by a stream of water admitted through the rectal extremity. As soon as the water came through clear, he grasped the intestine by its two ends,

and shook the contained water back and forth to disengage any particles still clinging to the walls. This was continued for about five minutes. He cautions against too long and too careful washing, as the active properties of the mucous membrane will be dissolved out also, as was the case with Wittich, who washed the rabbit's intestine for half an hour. The mucous membrane is then easily scraped from the muscular layers beneath, comminuted with shears, or rubbed up with ground glass, and mixed with three to six parts of water. After standing at the ordinary temperature from a quarter of an hour to two hours, it is filtered through linen, or through a tunnel containing ground glass, and then through paper. The fluid thus obtained is of a yellow color, alkaline reaction, and with an odor of the intestinal canal.

Paschutin does not state the mode of his experiments upon albuminoid bodies and fats, but gives, in minute detail, the processes which he adopted for testing the action of the above infusions upon starch. These processes are so complete and delicate that I desire to give them somewhat at length. His task was not merely to show that sugar appeared after starch and intestinal juice had been mixed and exposed to a certain temperature, but to prove that sugar was not due to microscopical organisms or the influence of the air, but was formed at the expense of the starch under the influence of the digestive fluid, and also that it was not the result of some change in the digestive fluid itself.

To demonstrate these points, he pours into three glasses (I., II., III.) equal amounts of the water infusions, about fifty centimetres, and heats glass I. for a short time at a temperature from 80° to 90° C. This temperature coagulates all the albumen, and, as will be seen later, destroys all diastatic virtues which the fluid may have possessed. To I. and II. he then adds equal amounts (twenty-five centimetres) of freshly prepared starch paste, and to glass III. an equal volume of water. A fourth glass receives, simply, a known amount of starch paste. Thus,

Glass I. contains intestinal juice (previously heated), 50 ccm. + starch paste, 25 ccm.

Glass II. contains intestinal juice (unheated), 50 ccm. + starch paste, 25 ccm.

Glass III. contains intestinal juice (unheated) 50 ccm. + water, 25 ccm.

Glass IV. contains only a certain amount of starch paste.

These glasses he then places in a water-bath, pendant through the openings of a floating disk, and keeps them at a temperature of 35° to 40° C. for a short time, and then interrogates them for their sugar contents. To this end he employs the following reactions :—

Moore's Reaction.—This test, as is well known, depends upon the fact that a colorless fluid, containing sugar in solution, by warming with a caustic alkali, will turn yellow, then red, brown, and, finally, black.

A. The play of color is more active as the degree of temperature to which the solution is subjected is higher.

B. If two portions of a sugar solution, equal in volume and concentration, be mixed with equal amounts of alkaline solutions of different degrees of density, a more active color-reaction consorts with the more concentrated alkaline solutions.

C. On the other hand, if the sugar solutions vary in concentration, and are mixed with equal amounts of one and the same alkaline solution, the reaction favors the higher per cent. sugar solutions.

D. If different amounts of a concentrated alkaline solution be added to equal volumes of a sugar solution, the color will be found to diminish with the larger amount of the alkali. The opposite effect takes place, however, if the alkaline solution be weak. (This latter statement is true only within certain limits.)

Hence, it follows from (C) that if equal volumes of similar fluids which contain different amounts of sugar be combined with similar amounts of an alkaline solution of one and the same concentration, and be then heated at one and the same temperature for the same length of time, we can quantitatively determine the amount of sugar contained in each fluid by comparing the rapidity with which the color-changes appear and follow each other.

As the value of this test depends upon the accurate comparison of depths of color and color-changes, it is obvious that the test glasses must be colorless, of the same diameter, and must possess the same ability to transmit heat. Accordingly, Paschutin took a dozen test-tubes, of medium size, and poured into each one an equal amount of sugar solution and of caustic soda solution, and chose those tubes in which the fluids stood at the same level. These tubes were then corked to prevent access of carbonic acid from the air, placed in the apertures of a wooden disk, and submitted in a water-bath to a temperature of 80° to 90° C. Only those tubes were approved in which the colors appeared and changed simultaneously. The water-bath should be made of glass, for convenience in observing the play of colors.

To determine the delicacy of Moore's reaction in a mixture composed of starch, a ferment and an alkaline hydrate, Paschutin prepared a compound consisting of a four per cent. solution of starch (1 part), a ten per cent. solution of caustic soda ($\frac{1}{2}$ part), and human saliva filtered and diluted ten times (1 part). As the alkaline hydrate was added to the starch before the ferment, no diastatic action could result from the contact of the two latter. From this mixture, he poured ten ccm. into each one of ten approved test tubes, and then added to each one, respectively, 0, 1, 2, 3, &c. drops of a sugar solution. (0.25 grammes of sugar to 100 ccm. of water; one drop $= \frac{1}{25}$ ccm.) The tubes were then well shaken, corked, and placed for three to five minutes in hot water (85° C.) until the colors were distinct. With care, he says, one may distinguish the color from one drop of the sugar solution. With two drops, the color is well defined; and with three drops it cannot escape the most careless observer. One drop of the above sugar solution, however, contains 0.0001 gramme of sugar, which, in relation to the whole amount in each tube (10 ccm.), equals 0.001 per cent, If, now, instead of a 0.25 per cent. solution of sugar, one employs a 0.1 per cent. solution, no difference from the above result can be distinguished. A one per cent. solution gives a scarcely traceable difference. It follows, therefore, that if ten ccm. of the mixture contain 0.01 gramme of sugar (0.1 per cent.), the smallest difference in the variation of the sugar contents which is distinguishable by Moore's test is equal to about 0.0004 gramme (0.004 per cent.) Generally, so long as the

sugar contents do not exceed 0.5 per cent. the color confines itself exclusively to the yellow tint.

Having thus illustrated the great delicacy of Moore's reaction, and having obtained a number of approved test tubes, Paschutin returns to the mixtures which he left floating in the water-bath (page 16). If diastatic action be possible under any of the conditions given in any of the four glasses, it must have taken place by this time. Accordingly, he removes the disk from the bath, and subjects II. and III. to a high temperature, to coagulate the albumen, and then filters them together with I., which was previously heated. This precaution is merely a matter of convenience, as the reaction shows no essential difference if the albumen is not removed, but requires much more time.

He next arranges a great number of approved tubes in four rows, supported by a wooden disk floating in ice cold water. Each row of tubes corresponds to one of the solutions above described, and into each tube is poured five ccm. of the mixture corresponding to its row. To each tube of the four rows is then added two ccm. of a six per cent. to ten per cent. solution of caustic soda. The tubes are then corked and transferred with the disk into a hot bath, where the color-changes can occur if sugar be present.

Besides Moore's reaction, Paschutin employed Trommer's test with Fehling's solution, and also the yeast fermentation test, but he decidedly preferred the first, on account of its superior delicacy.

By modifying the above experiment, so as to test the diastatic changes at varying intervals of time, Paschutin found that starch alone (IV.), subjected to the temperature of the body, will change into sugar spontaneously, but only after considerable time, rarely till after the lapse of a day. The normal infusion itself contains a feeble trace of sugar, which soon disappears on being warmed at 35°–40° C. On the other hand, the mixture of the normal infusion with starch (II.) gives a decided sugar reaction, which increases in intensity for five hours, and then gradually yields to an acid fermentation and the appearance of a precipitate of albumen. The phenomena in bottle I., wherein the infusion had been previously subjected to a high temperature, correspond to the appearances in bottle III., which contains merely the infusion and water, thereby proving that a high temperature is destructive to the ferment of intestinal juice.

From this testimony, it seems indubitable that sugar is formed at the expense of starch under the influence of an infusion of the intestinal mucous membrane, and in the above case was not due to any idiopathic changes, so to speak, in the fluids themselves, or to the influence of organisms introduced from the air. Paschutin adds, that the substitution of the natural secretion for the infusion causes no essential modification of the phenomena, and in comparison, he says, the ferment of the intestinal juice is about equal in strength to a weak solution of saliva. He observed that the intensity of the sugar reaction under the influence of one and the same diastatic fluid depended upon the concentration of the starch paste, upon its relative amount, and particularly upon the temperature in which the sugar formation occurred, and he attributes the negative results obtained by Thiry, Leube and Quincke to a lack of consideration of such points on their part.

Paschutin tabulates the results of his experiments as follows :—

A. The water infusion of the mucous membrane of the small intes-

tine of a dog, exposed for three or four hours to a temperature of 37° to 40° C., yields a voluminous precipitate of albumen, which remains unchanged up to the beginning of decomposition. Simultaneously with the appearance of the albumen, there occurs a decided diminution of the alkaline reaction of the infusion, which sometimes assumes even an acid reaction. Parallel with these phenomena, there disappears from the fluid that constituent which reduces copper oxide in the freshly prepared specimen. Previous boiling of the infusion does not entirely prevent the occurrence of the above phenomena, as, in place of the precipitate, a slight turbidity occurs. Fibrin of the blood and other albuminous materials are not converted into peptones by the infusion. Fat is not decomposed, but only imperfectly emulsified. All the above remarks apply, also, to the infusions of the colon. The natural intestinal secretion gives negative results as regards the digestion of fats, various albuminoid substances, and especially obscure results in regard to the digestion of fibrin.

B. The infusion of the mucous membrane of the small intestine converts starch into sugar. The infusions of other mucous membranes act in an analogous manner, the only difference being quantitative. Diastatic properties are found in the following mucous membranes, in the order of arrangement: in the membrane of the small intestine, urinary bladder, gall bladder, cæcum, colon, rectum and stomach. The œsophagus yields a slimy infusion which has no diastatic power. The secretion from Thiry's fistula in the small intestine changes starch into sugar. No secretion has yet been obtained from a fistula in the colon.

C. Among the infusions of the above mucous membranes, only that of the small intestine (from the pylorus to the valvula Bauhini) contains a ferment which changes cane sugar into grape sugar. This peculiarity, however, is not common to all animals; it was observed in the dog, cat, mouse and rabbit, but not in the ruminantia (he only examined the sheep and calf). The same is true of the natural juice of the intestines.

D. Those infusions which act as well upon starch as upon cane sugar do not contain one ferment possessed of this double virtue, but two distinct ferments, viz., (*a*) the starch ferment, and (*b*) the cane sugar ferment. These ferments may be obtained separately by the following process: After washing the small intestine of a dog, and removing the outer layer of muscle, fill it with water under a pressure of a column of water two metres high. The fluid (I.) which filters through under this pressure contains a rich amount of ferment *(a)*, with scarcely a trace of *(b)*. The residue (II.) remaining in the intestine contains ferment *(b)*. To relieve fluid I. of all traces of *(b)*, it should be subjected to a temperature of 37°–40° Centigrade for an hour. The albumen precipitate thus formed carries down with it all of ferment *(b)*; or, again, fluid I. may be refiltered after thoroughly washing out the intestine. If, in the second filtering, too great pressure be avoided and the fluid be allowed to pass through the membranes drop by drop, the filtrate will not contain the smallest trace of *(b)*. Fluid II. may be freed from all traces of *(a)* by further addition of water and filtering.

The infusion of the mucous membrane may be similarly filtered through a previously washed intestine, but as it is rich in albumen, it

requires more pressure, which is a great obstacle to the complete separation of the ferments.

E. A temperature above 40° C. acts destructively upon a solution of an animal ferment which changes starch into grape sugar. A temperature not exceeding 40° C. is entirely harmless to the same. This destructive action of the temperature is modified in its effects by the following conditions, viz., by the degree of the temperature, the duration of its influence and the concentration of the ferment solution. The higher the temperature, the longer its action; and the diluter the ferment solution, so much the more is the damage.

F. If starch paste be exposed to the air, there appears in it a something which will reduce copper oxide. The presence of this reducing agent can sometimes be detected after the lapse of a few hours, but ordinarily not till after two or three days.

These results of Paschutin are practically confirmed by Bernard, who, if not always correct, is always bold in his opinions. As recently as 1856, Bernard maintained that none of the tissues or secretions of the body contained a ferment in the fresh condition. Only in proportion as they had undergone decomposition, could they be said to act as ferments; and hence those secretions which were the most active were said to be the first to yield to decomposition. With equal force and enthusiasm, he now declares that the intestinal juice contributes exclusively to the digestion of the hydro-carbons, and particularly of cane sugar. Its action upon cane sugar, he says, is due to an albuminoid ferment, which it contains, and which he calls "*ferment inversif.*" Amylaceous bodies are digested, he says, very feebly; and of the albuminoid group, fibrin is the only one attacked.

This brings me to the consideration of a number of experiments of my own, which were completed before I knew anything about the results obtained by other men, so that my observations and conclusions, so far as they go, are entirely unprejudiced. I employed Thiry's method of establishing a fistula.

The dog which was associated with me in these experiments was a small mongrel female, in whom the bull-dog element seemed predominant. She was fastened upon her back, and etherized, and then operated on for the fistula. No food was allowed her for a few days subsequent to the operation. Then she was restricted to bread and milk for a few days longer, and finally returned to a regular dog diet. At first, she showed considerable general disturbance, and became quite emaciated; but she gradually regained her flesh and spirits until, in a few weeks, she was as plump and playful as before the operation.

This was in November of 1872; but no digestive experiments were undertaken until the following February, when the external meatus of the fistula was found sufficiently large to admit a medium-sized elastic catheter. I cut off about four inches of the end of a rubber catheter, punched numerous eyelets in it, and then attached it to a short glass tube, which tube was passed through a piece of cork. The cork served two purposes. It prevented the catheter from slipping into the fistula and supported a large test tube for the collection of the secretion which might flow out from the fistula. A slit was cut in the side of the cork to allow the escape of air from the tube as the secretion entered, while a string, attached to the cork and passed around the dog's body, supported the whole apparatus in place. To prevent the dog

from roaming, she was stationed under a horizontal pole, from which she was suspended by ropes passed round her hips and shoulders; only the ropes were so adjusted that they allowed her to rest on her feet, and confined her only when she attempted to move.

Like Thiry, I found that the fistula secreted but little unless irritated, though it was occasionally filled with a yellow, butter-like mass of secretion, from which the water had been reäbsorbed. This plug of inspissated *débris* was the source of great inconvenience, as it both prevented the introduction of the catheter, and plugged up the eyelets, so that no secretion could flow out. By first introducing a glass probe, I sometimes excited sufficient secretion to lubricate the mass, which could then be expelled by external manipulation. Care was necessary in these attempts not to injure the parts, else the integrity of the secretion would be impaired by admixture with blood.

The irritation of the mere presence of the catheter in the fistula was the only stimulant employed for exciting the secretion, and, therefore, I never got a great amount at any one time. The first time the catheter was introduced, I obtained only five drops of the fluid in an hour, which was the smallest amount I ever procured. As the dog and I became better acquainted, she responded more liberally, and once yielded me thirty drops in an hour.

One day, during my experiments, the dog was thoroughly frightened by falling from the table on which she stood, and by my efforts at recapturing her. During the next fifteen minutes, the fistula secreted only one drop, and at the end of half an hour, I was able to collect only three drops. Previously to the fall, she had been secreting at the rate of 14.8 drops per hour. The fact that the digestive processes are so often aborted by mental emotions led me to think that the nervous excitement of the dog consequent upon her fall might have lessened the action of the glands. It is also possible that in the struggle the fistula became misplaced in some way, so that the secretion could not flow as readily as before.

My digesting experiments were conducted as follows: Choosing four glass stoppered bottles, I added to I. twenty-five ccm. of distilled water and ten drops of intestinal juice. Bottle II. received an equal amount of water. Into III., I poured twenty-five ccm. of a hydrochloric acid solution (0.2 per cent.), and ten drops of intestinal juice; and into IV., I poured the same amount of the acid solution without the juice. To each of the bottles I added a few flakes of fibrin and then placed them in a water bath, which was maintained at a temperature of 36°–40° C. by a Bunsen thermo-regulator. To recapitulate:—

Bottle I. contained distilled water, 25 ccm., + fibrin + intestinal juice ten drops.

Bottle II. contained distilled water, 25 ccm., + fibrin.

Bottle III. contained acid solution (0.2 per cent.), + fibrin + intestinal juice 10 drops.

Bottle IV. contained, acid solution (0.2 per cent.), + fibrin.

The fibrin in bottles I., III. and IV. became softened and swollen in much less than an hour, and in the course of twenty-four hours was often entirely broken up, leaving only a turbidity of the fluid, or a slight sediment. As a rule, the fibrin in bottle III. was apparently more affected than in I. or IV. On the other hand, the fibrin in bot-

tle II. appeared to remain unchanged after a delay of a day in the bath.

Having noted the gross appearances, I removed the bottles from the bath and filtered them. Each one was then boiled with nitric acid until all precipitation of albumen ceased, and then they were filtered again. To the final filtrate, I added equal amounts of ammonia. The nitric acid gave a slight yellow tinge to the fluids in I., III. and IV.; and this color was invariably deepened on the addition of the ammonia, proving thereby the presence of peptones. The reaction in IV. compared very nearly to that in I., though they both were exceeded in depth of color by the reaction in III. Bottle II., which contained merely fibrin and water, gave negative results in every instance. These experiments were repeated many times, and always with the same results.

I am aware that my experiments are liable to one objection, in that I did not digest the intestinal juice and water without fibrin to see if the presence of the peptones might not be due to some change in the secretion itself. I think this objection can be met, however, by the record of the gross appearance of the fibrin subjected to only ten drops of the juice, and that soaked merely in water. The former softened, swelled up and dissolved, while the latter was apparently unchanged, even after twenty-four hours. I made repeated tests of solutions of distilled water (25 ccm.) and intestinal juice (10 drops), and also of the acid solution (25 ccm.) and intestinal juice (10 drops). These mixtures, freshly prepared, gave an exceedingly faint yellow color as the result of the test above described; but the color was in no wise comparable to that obtained after the digestion of the fibrin. The fibrin which I employed was obtained by bleeding a dog to death, whipping the blood as it escaped and filtering it through a cloth. It was then washed perfectly clean by running water, and preserved for use in glycerine. On removal from the glycerine, it was squeezed thoroughly, and then washed in distilled water.

On substituting egg for fibrin in the four bottles above mentioned, my results were not so satisfactory. The egg was boiled, and then cut into thin slices through the white part. A few slices were added to each bottle. The egg in bottle II. remained unaffected, even after twenty-one hours, but, on testing the solution for peptones, I obtained, in every experiment, a faint yellow color, showing that peptones were present. This color, however, was eclipsed by that in I., III. and IV. I am unable to explain the presence of peptones in bottle II., unless it be that, during the boiling of the egg, the albumen was affected by some of its own chemical constituents, and that thus the peptones were formed.

Only one experiment was made with regard to the diastatic action of the intestinal juice. A thin, starch paste was prepared, and placed in two bottles (25 ccm. in each). To the first was added fourteen drops of intestinal juice, and then the two were placed in the bath, as in previous experiments. After a short time, all the starch in the controller (II.) had settled to the bottom, leaving the fluids clear above. In bottle I., however, the starch did not form so dense a precipitate, and the fluid was somewhat turbid. On adding Fehling's solution to the controller, and boiling, no sugar reaction appeared,

though the same treatment of bottle I. gave decided evidence of the presence of sugar.

The conclusions which I derive from my experiments, therefore, are, that the intestinal juice converts starch into sugar. Its action upon boiled white of egg is doubtful. Whether alkaline or acidified, it exerts a solvent influence upon fibrin. Thiry declared that the intestinal juice when acidified ceased to act upon fibrin. I found that its action was increased by combining it with a 0.2 per cent. solution of hydrochloric acid. Lastly, I observed that the fibrin was converted into peptones by the action of hydrochloric acid alone.

A *post-mortem* examination of the condition of the dog's abdomen was made on Oct. 10, 1873, which was nearly a year after the operation. The fistula had not been meddled with for several months previous, and was consequently full of the inspissated yellow *débris* before mentioned. This had a peculiar, doggy, musty smell, but no odor of decomposition.

On opening the abdomen, the mesentery was found adherent in every direction to loops of intestine, showing that quite extensive peritonitis had existed. The fistula itself was adherent to a neighboring piece of intestine, and was fourteen centimetres long. It was considerably atrophied, being four centimetres in circumference, while the smallest adjacent portion of the intestine was five and a half centimetres. Near the inner end of the loop, the main intestine was bent at right angles, and held in that position by adhesions. Above the angle, the intestine was distended eleven centimetres in circumference, and contained a hard lump, which proved to be bits of straw, sticks, and other indigestible materials, which could not pass through a slight constriction at that point. Careful inspection of the part detected only a faint trace of a cicatrix to mark the place from which the fistula had been excised. The cicatrix, such as it was, was situated forty-five centimetres above the ileo-cæcal valve, and one hundred and thirty-seven centimetres below the pylorus. On cutting open the intestine and the fistula, the mucous membrane of the latter was found to be of a somewhat deeper, red color, but no microscopical difference could be detected in the epithelium of the two.

Portions of the fistula and intestine were hardened in alcohol, and then carefully compared by microscopical sections. There was, apparently, no structural change in the fistula, except that it was atrophied. Lieberkühn's follicles were distinguishable throughout their entire length, but were much smaller, and more indistinct than they were in the intestine proper. It will be remembered, however, that this examination was made several months after my experiments, and that during those months the fistula had been plugged up with the secretion and undisturbed.

Thus far, I have described the results of observations made upon the small intestines mainly, and but a few words more will be necessary to state all that is known regarding *digestion in the large intestine.*

It was formerly supposed that the cæcum possessed special glands of an acid secretion, and served the function of a second stomach. The acidity of the contents of the different portions and appendages of the large intestine is now known, however, to be due to the acid fermentation of the chyme, inasmuch as the mucous membrane of the parts designated gives a very intense, alkaline reaction.

The secretion of the large intestine has never been collected by Thiry's method, though several attempts have been made. Frerichs, with his loop confined between two ligatures, obtained a fluid similar to that of the small intestine, and greater in amount. Bernard claims that the large intestine is merely the seat of physical and mechanical acts, or of chemical acts which are of no importance as regards the true digestive phenomena. This opinion conflicts somewhat with the observations of Paschutin, who says that separate infusions of the mucous membrane of the cæcum, colon and rectum converted starch into sugar, but did not affect cane sugar, albuminoids or fats.

Kühne quotes the saying that the *processus vermiformis* is good for nothing, except to hurry one to death when any chyme has unwontedly entered it. It is well supplied with Lieberkühn's follicles, however, and, therefore, in some animals, where the process is very long, it must contribute no inconsiderable amount of secretion to the cæcum. Funke tied a string around the upper part of the long appendix cæci of the rabbit without injury to the vessels, and, after two to four hours, examined the secretion. It was slightly ropy, turbid from presence of cylinder epithelium and the products of digestion, and had an intense, alkaline reaction. It changed starch into sugar, and excited acid fermentation, but had no effect upon raw albumen or flesh, either within or without the body.

Funke's results are open to criticism, however, as the fluids which he obtained evidently contained other matters than the pure secretion of the part. Accepting Paschutin's opinions as the most reliable, we may conclude that the secretion of Lieberkühn's follicles in the large intestine differs from that of the small intestine in amount, and in the fact that it does not convert cane into grape sugar. Otherwise, the two secretions are similar in quality.

The following table contains a digest of the experiments thus far described:—

ACTION OF INTESTINAL JUICE ON

	ALBUMINOIDS.	STARCH.	FATS.	CANE SUGAR.	GRAPE SUGAR.
BUSCH.	Protein bodies are dissolved with the appearance of putrescence and the odor of ammonia.	Acts more energetically upon starch than upon protein bodies.	Unaffected; not absorbed unless mixed with bile.	Unaffected.	
THIRY.	Fibrin is crumbled in the normal secretion; this does not occur if the juice be neutralized or acidified. Coagulated white of egg and red muscle are unaffected.	Starch is not converted into sugar.	Unaffected.	No change after hours of digestion.	Intestinal juice has no fermentative influence.
LEUBE.	Fibrin is crumbled; other albuminoids are unchanged.	Unaffected.		Cane sugar is changed to grape sugar.	Lactic and butyric fermentation occurs as the result of presence of vibriones.
QUINCKE.	Fibrin is dissolved occasionally; raw or cooked flesh and coagulated white of egg are unaffected.	Starch is changed to sugar after a long time.	Unaffected.		Converts sugar into lactic acid after a long time (12 to 24 hours).
SCHIFF.	Albumen, fresh casein, cooked or fresh muscle are dissolved in the secretion of the duodenum.	Action on starch almost as energetic as that of pancreatic juice.	Oils are emulsified.		
WITTICH.	Fibrin is not digested.	Energetic diastatic action, in one instance.			
PASCHUTIN.	Fibrin and other albuminoids are unaffected by water infusions. Action of normal secretion is especially doubtful on fibrin.	Starch is converted into sugar.	Fats are imperfectly emulsified.	Cane sugar is changed into grape sugar by a ferment found only in the small intestines.	Acid fermentation occurs after a few hours.
BERNARD.	Fibrin is the only albuminoid substance attacked.	Acts very feebly on starch.		Chief function of secretion of small intestine is to digest cane sugar; secretion of large intestine is impotent.	
GARLAND.	Fibrin is crumbled and converted into peptones, whether the secretion be alkaline or acid. Digestion of coagulated white of egg is doubtful. Fibrin is digested by a 0·2 per cent. HCl solution.	Starch is changed into sugar.			

It will be seen from the preceding table that nearly all the observers agree that fibrin is digested by the intestinal juice, but that all other albuminoid materials are unaffected by that secretion. Two of them declare that starch is not changed to sugar, while the remainder, with more or less vehemence, assert the opposite opinion. The testimony in regard to fats is entirely negative, except that they are sometimes emulsified.

It seems pretty certain that the secretion of the small intestines converts cane sugar into grape sugar, and Bernard claims that this is the chief function of that fluid. Only four venture to testify to acid fermentation, and, of these, three say that the secretion does produce it.

Fortunately, we have further testimony regarding fermentation in the observations of Planer upon the causes of flatulence. Magendie stated that the gases in the alimentary canal were secreted by the mucous membrane. Planer, however, observed that in normal digestion, gases occurred only exceptionally in the stomach, but were common in the intestines. This led him to a series of experiments, by which he proved that the gases are due to fermentation of the chyme, and that this fermentation is favored by alkaline substances, but is checked by acids. Moreover, the activity of the fermentation grows weaker as its own acid products increase, but is revived by the addition of any neutralizing agent. He concludes, therefore, that the immunity of the stomach from gases is due to the acidity of its secretions which prevents fermentation, while the intestinal secretion favors fermentation by its alkalinity.

He notes a fact of therapeutical interest, namely, that the addition of magnesia to the food increases the formation of gases in the intestines, and particularly of hydrogen gas, while the addition of acid hinders it. Sulphuretted hydrogen gas is found after a flesh diet, but not after vegetables. Oxygen does not occur at all. Hydrogen and nitrogen are common ; and coal gas was discovered once in man, but never in dogs.

It may be objected that the amount of digestive energy exhibited in the experiments described is altogether insignificant in comparison with the amount required for the disposal of a good dinner. It must be borne in mind, however, that these are qualitative experiments, merely, and give only the relative action of small amounts of the secretion, when kept in a quiescent condition in a water bath. For a fair quantitative estimate of the value of the intestinal juice, we must await a more definite approximation to the probable amount of the secretion, at the same time remembering, as Dr. Edes says of pepsin, that the results of artificial digestion cannot limit the activity of a secretion in an organ which absorbs the products formed, and which, for all we know, may be capable of rapidly returning to its interior the ferment which still retains its activity.

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ON THE TREATMENT OF THE SICK IN TENTS AND TEMPORARY HOSPITALS.

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Read before the Massachusetts Medical Society, June 3d, 1874.

THERE are very many instances upon record that furnish ample illustration of the truth of the assertion that temporary hospitals are the best ones. A few of them may be cited. It is related that, in 1755, some men-of-war carried out from England to North America a malignant jail-fever. The fever continued to spread while at sea, but at Halifax the sick "were lodged in tents, or in very old shattered houses that admitted the air very freely, which put a sudden and effectual stop to this disorder."

In 1758, says Sir Richard Brocklesby, a greater number of sick were landed out of transports on the Isle of Wight than could be contained in all the spare out-houses, barns and empty cottages that could be procured. A very rudely-built temporary shed of deal boards was constructed to hold 120 patients, and, though apparently inadequate to the end proposed, it was found that, notwithstanding much extraordinary cold and moisture, remarkably fewer died of the same disease than died anywhere else; and all the convalescents recovered much sooner than they did in the warmer and closer huts and barns, where fires and apparently better accommodations of every kind could be procured for them.

The instance is often quoted of the use of the abattoirs at Paris, during the invasion of France in 1814 and 1815, when the sick and wounded were put in these simply constructed buildings, which had neither doors nor windows, so that the wind blew directly through; yet the mortality in them was only one half of what it was in the hospitals.

The same facts were observed by the Prussians in 1812 and 1813, and Sir James McGregor fully recognized the immense importance of the distribution of the sick and wounded of the British Army in the Peninsular War. Sir John Pringle had a great and wholesome fear of general hospitals for the English service, and strenuously advocated the dispersion of the sick in small establishments.

Very many such instances may be found among the recorded observations of medical men of the past century, indicating that the educated opinion and experience of the profession has always been against the agglomeration of the sick in large numbers. In our own times, and within the personal knowledge of every one here present, there

have undoubtedly been notable illustrations of the truth of this matter.

Since 1854, the sick of the Austrian army have been largely treated, during eight or nine months every year, in well-ventilated tents, in preference to field hospitals. The results were very satisfactory, and Dr. Krause reports that "the most severe maladies ran their course much more mildly in the free air, i. e. in tents, and recovered more perfectly and more quickly than in the confined space of hospitals." When, in following years, tents were kept open farther into the winter, it was noticed that when, by a sudden onset of cold weather, the temperature fell to the freezing point at night, the sick were in no degree damaged, and the men themselves, though severely ill, declined the offer to move from the tents into the hospital. In the experience of six years (1854 to 1860), typhoid fever, in its severe forms, was treated more successfully in tents than in the hospitals, the rate of mortality being 20·9 per cent. in the former and 30·5 per cent. in the latter. The most favorable results were observed also in cases of smallpox, pyæmia, hospital gangrene and wounds. When, in 1859, a number of wounded (789) were sent from Italy, there was no death among any of those treated in tents, where all the severe cases were sent. No case of pyæmia occurred in tents, and in no single case could it be made out that hospital gangrene originated there, though there were such cases in the wards of the hospital building. The story is well known of the terrible losses, in the Crimean war, of those treated in the large hospital at Scutari, with at one time 2,500 sick and wounded under its roof, of whom two in every five died, while there was afterwards not one half the mortality among those in the hospital tents, though badly fed and clothed and without proper medicines. The yearly death rate of 60 per cent. of the strength of the army, from disease alone, in the first seven months of the campaign, was reduced to a yearly average of $1\frac{1}{10}$ per cent. during the last five months. Wooden barrack hospitals were for the first time made use of on a large scale during that war.

At the beginning of the civil war in the United States of America, as had been the custom in emergencies in all previous wars of modern history, public buildings, schoolhouses, churches, hotels, factories, &c., were used as hospitals; but gradually one-story wooden pavilions, erected for the purpose, came into general use. It was prescribed, by orders of the War Department, that the pavilions should be 187 feet long, 24 feet wide and 14 feet high from floor to eaves. Two small rooms were partitioned off, at one end for bath-room and water-closet, and at the other end for medicine closet and nurses' room. The space remaining, 165 feet in length, was occupied by beds for thirty patients, and there were sixteen windows on each side of the pavilion. Ventilation was partially obtained by doors and windows, but principally, in summer, through an open ridge. In winter, the wards were each heated by four stoves, the pipe of which, passing upward through wooden shafts, formed ventilating flues for the extraction of foul air. Fresh air was introduced through air-boxes opening under the stoves. The floors, roof and walls were of a single thickness of boards, with the joints in the walls battened outside, and the roof made water-proof with some cheap material. The floors of the buildings were required to be at least eighteen inches above the ground, with an open and free passage for the air beneath.

The military hospital system was developed and perfected as has never before been done, and, at one time, in 1864, there were 202 general hospitals, with 136,894 patients in them. The average yearly mortality rate among the sick, of the whole period of the war, was less than 6 per cent. of the whole strength of the armies, a result obviously due to an excellent and efficient hospital organization.

Compare with this the annual mortality from disease of the British Army in the Crimea, which was 23.2 per cent. of its whole strength, and with that of the French Army, which was 30 per cent.

It is well known that great numbers of our sick and wounded were treated in tents in the field hospitals during the War of the Rebellion, and it was not the least important among the achievements of the Medical Department that it was proved beyond question that tents afford all necessary protection against unfavorable atmospheric influences, at least during all but the winter months, and that wooden barracks furnish entirely adequate protection and shelter all the year round in temperate climates. Dr. Hammond, in his treatise on Hygiene, says, in writing of the earlier years of the war, that "nothing is better for the sick and wounded, winter and summer, than a tent or ridge-ventilated hut. But in one instance that has come to my knowledge has hospital gangrene originated in a wooden pavilion hospital, and in no instance, so far as I am aware, in a tent."

The history of the Franco-German War, in relation to this subject, is exceedingly interesting, and an examination of the hospital system, in each of the two countries, give additional proof of the superiority of special temporary structures. Tent hospitals were not so much used as in the war in America, their proper management being, apparently, not understood. The American Ambulance, in Paris, attracted great attention, by its remarkable success and its demonstration that the objections believed to exist against tent-hospitals for winter service were not well founded. One of the earliest barrack hospitals to be erected as a result of American military experience was designed by Dr. Esse, and annexed to the Charity Hospital at Berlin, in 1867. It was only 84 feet in length, and contained 20 beds, but otherwise resembled the American pavilion, with the addition of a gallery, 4½ feet wide, on each side, and a verandah at each end, and being constructed somewhat more substantially, with double walls and floor, as it was designed for use in winter, as well as summer. It was warmed by two stoves, and, by a peculiar and effectual method of ventilation, the foul air was drawn through the open space in the hollow walls and floor, and passed upward through pipes near the stove, escaping through the roof. The Germans afterwards built many barrack hospitals, differing chiefly from the American system, in use during the civil war, in being smaller, containing fewer beds, and being more hastily constructed. Many of them were so constructed that, in pleasant weather, the walls could be removed, and they could be thrown open on every side, with the galleries and verandahs screened and protected by canvas curtains.

The English model-hospital barrack is constructed with double walls, and is raised above the ground, for the free circulation of the air beneath. Great pains are taken to prevent the deposition and accumulation of organic matter in the cracks and joints of the woodwork. The inner walls are made of hard material, which can be washed, and the

floors are of hard wood, kept clean by waxing, with the joints filled with cement. Latterly paraffin has been used by being melted and poured upon the floors, and ironed in with a hot box-iron. It is also applied to the walls and furniture as a paint, dissolved in turpentine or paraffin oil. The recent experience of the English in the treatment of epidemic diseases in such hospitals is not less remarkable than the instances before quoted.

The plans for permanent military hospitals at army posts, adopted by the U. S. Government, carry out the essential principles of the barrack hospitals of the war. They provide for an administration building and attached pavilion, to hold from 12 to 24 beds each. They are to be built with double walls and quite substantial, but still are comparatively inexpensive. They are generally wooden structures, but sometimes they are built of brick upon the same plan. One of these brick hospitals may be seen at Fort Independence, Boston Harbor; it has a capacity of 24 beds and cost $13,500.

Dr. Billings, in his Report on Barracks and Hospitals, in 1870, writes of the U. S. Army Hospitals then existing, "they are satisfactory in one respect, that they are almost all temporary hospitals. This I consider a decided advantage, as I believe that no hospital should be constructed with a view to its being used as such for more than fifteen years. If the money required to put up such structures as the New York Civil Hospitals, the Rhode Island Hospital or the Cincinnati Hospital, were divided in two equal parts, one-half being used to erect frame hospitals of the same capacity as the stone and brick hospitals actually built, and the other half being put out at interest at 6 per cent., a complete new hospital could be furnished every twelve years, for an indefinite period to come."

Many objections are generally believed to exist against the use of tent and barrack hospitals—that they furnish inadequate shelter, are wet and cold, and cannot be properly warmed in bad weather, that the ground around and beneath them will become infected, &c. These objections must be considered as proved to be quite unfounded, by the very extensive and successful use that has been made of such hospitals. Proper management will overcome all these difficulties. The tent wards which you have seen at the Boston City Hospital have rendered most satisfactory service in the past two years. They were in use during only about four or five months in each year, between May and October. They are constructed of U. S. Army hospital tents, which are 14 feet in length, 15 feet in width, 11 feet in height at the centre, with a wall 4 feet 6 inches, and a fly of appropriate size. The tents now in use have the two latter dimensions increased, being 12 feet high at the centre, and having walls 5 feet high. They are made of 10-oz. cotton duck, and, with poles, cords and pegs complete, can be bought for less than $100 each. Tents of this size will hold very comfortably six beds each. At the City Hospital, the tent-wards have been constructed in the following manner: A floor of planed and matched boards, 37 feet long and 15 feet wide, is laid so as to be about 18 inches above the ground, and supported upon blocks at many points to give it firmness. A light and strong frame, just fitting the inside of a tent, is put up at each end of this floor, leaving a space of 9 feet in length in the centre between the tents. Two tents are then put upon the frames, and a narrow board placed between them to com-

plete the ridge of the structure. A little fly is then spread over each tent and fastened on each side by its cords to a rail on a level with the eaves of the tent, and about two feet distant from it. Below these rails and near the ground are others to which the cords from the eaves of the tents are attached. A third fly is then spread and fastened to the rails on each side to form an awning over the open space between the tents. In this space are placed a table, chairs, refrigerator, &c. The walls of the tents can be raised on all sides and looped up in pleasant weather, so as to form an awning of the whole, or they can be closely fastened down to keep out the rain and wind. During the last two seasons, 50 patients have been treated in these tent-wards with the most gratifying results.

The U. S. Army hospital tent has at one end a lapel, so that two or more tents being joined and thrown into one a tent pavilion is formed, with a continuous covering or roof. In the field hospitals, during the war, it was customary to unite four or six tents together in each pavilion, and it was found to be an arrangement that was convenient and advantageous in many ways.

Many different forms of hospital tents have been devised in other countries, but none seem to have rendered any more satisfactory service than those just described.

The heating of tents properly has been regarded as a matter of some difficulty. This has been accomplished quite satisfactorily, however, by the use of fireplaces, sheet-iron stoves, and by a plan called the "California stove." In this plan a small excavation is made in the ground, either within or just outside of the tents, and the fire being built in this excavation, the smoke and heat is carried along a covered trench, which passes under the floor of the tents into an upright flue, outside and beyond the tent wall. The tents are thus warmed through the ground or floor. This method was perfected and very successfully employed in the American Ambulance in Paris, in the winter of 1870 and '71.

An important consideration that must never be forgotten is that perfect cleanliness must be maintained around and about such temporary hospitals. The ground about them should be thoroughly drained, and the surface replaced from time to time. Frequent and systematic policing must be enforced, and the location of tents must be changed, if long in use. The importance of this matter is generally overlooked, and the inattention to these very requirements at many of our popular summer resorts in the country, as at the seaside, has caused so much serious and fatal disease as to attract the general attention of physicians.

In the light of such experiences as have been set forth, it must readily be seen how easy and simple a thing it is to provide good hospital accommodations, in any emergency, no matter how sudden and unexpected, that the prevalence of epidemic and infectious diseases may occasion. In England such emergencies are now anticipated and preparation is made for them. Dr. Parkes says that "within the last few years it has become customary for all towns of any size to put up some temporary hospitals during an outbreak of cholera, smallpox, relapsing fever and typhus, and to remove persons ill with these diseases at once from their dwellings." Under the provisions of the Sanitary Act of 1866, the Medical Department of the Privy Council

points out in relation to providing "hospitals or temporary places for the reception of the sick," "that villages should have the means of accommodating instantly four cases of infectious disease, in at least two separate rooms, and it is considered that a good cottage would answer the purpose." "For temporary emergencies, tents are recommended or huts are advised." If tents cannot be procured or practically used, a hastily built barrack hospital of boards may, in a few days, be prepared. And not only this, but it will be one that will sufficiently shelter the sick, and will not be surpassed in its healing influences by the finest structure in the land. Every large town may have a well-built, wooden, pavilion hospital, which will fulfil all the requirements of a hospital, and still be cheaply built and supported. The principles upon which a hospital should be constructed cannot be better set forth than in the rules given by Dr. Parkes.

1. The sick should be distributed over as large an area as possible, and each sick man should be as far removed as possible from his neighbor.

2. The sick should be placed in small detached and perfectly ventilated buildings, so that there is no great number of persons in one building, and there shall be no possibility of the polluted air of one ward passing into another.

When we are called upon to devise a plan for a hospital, the prime object that should always be held in view is that it is for the healing of the sick. As far as its construction is concerned, we are to provide for the sick the *best permanent shelter*, and one that may be convenient for administration. Nothing more is needed, and when we begin to attach importance to other considerations, we begin to lose sight of and obstruct the attainment of our prime object. An infinite number of invincible proofs can be cited as positive evidence that temporary hospitals are the best. The reason why they are the best is simply because in them, better than in any others, we get pure air. Dr. Frank Hamilton says, "other things being equal, the best place to treat a sick or wounded man is, always, where he can get the most and the purest air." Florence Nightingale has comprehensively stated the whole matter in the first words of her "Notes on Hospitals," in which she says, "it may seem a strange principle to enunciate as the very first requirement of a hospital, that it shall do the sick no harm." These propositions may be taken as the axioms of hospital construction, and would undoubtedly be accepted as such by all who would build hospitals, from those who would treat the sick only in temporary and destructible huts and barracks, to those who would construct architectural monuments of their philanthropy. But when we come to inquire *how* we shall best provide the proper conditions for the treatment of the sick, give them abundance of pure air, and surround them with all the influences that can contribute to their recovery, then the difficulties begin, and the architects and the physicians are apt to disagree.

The lamentable errors of the past, in the histories of great hospitals, with their crowded wards and terrible mortality, furnish instructive lessons, and warn us to seek to avoid the evils of the old hospital system, of which the old Hôtel Dieu of Paris and St. Thomas of London, in the last century, are examples. We have the same evils in the hospitals of our own day, and do not need to go beyond the large cities of

our own country for such examples. Even at so late a period as that of the Crimean war, the old system prevailed, and the disastrous events of that war may be said to be the starting point from which followed the great changes wrought by modern hospital reform. The extraordinary results that have been obtained in the treatment of the sick and wounded, in temporary hospitals, have given forcible demonstration of the superiority of tents and barracks over hospitals of complicated construction. The rapid advances that have been made in modern times in all departments of scientific knowledge, the better understanding of the true nature of disease and the influences that propagate and control it, have contributed largely to the progress of hospital reform.

A startling array of facts has been brought to light in regard to the bad management and high rate of mortality of the great hospitals of the past and of those still existing. Such facts point to an unmistakable and inevitable conclusion. It is declared by Dr. Simpson, Dr. Kennedy and others who have most thoroughly investigated this subject, that a great portion of the high rates of mortality is preventible, and due to defects in the construction of hospital buildings, and that, as the well are made sick by "crowd-poisoning," so the sick, placed under the same influences, are surely hurried on to their death. The names "hospitalism" and "hospital influence" are given to these evil conditions, and it is declared that there are hospital diseases which have their origin *in the hospital*, that they generate therein an epidemic poison which, by its "*cumulation* and saturation," pervades the building, and surely kills many of the sick who come within its walls, who could get well elsewhere.

It is not intended, in this paper, to discuss in detail the progress of modern hospital reform. The whole subject is clearly and ably reviewed by Dr. Derby in the "Report of the State Board of Health of Massachusetts," for 1874, recently published. The summing up of the whole matter in relation to the evils of "hospitalism" and "hospital influence" is, that the old system of hospital construction is bad and utterly to be condemned.

Many new hospitals have been built in the last twenty years, in which principles enunciated by the advocates of hospital reform have been partially carried out. In all permanent hospitals, however, the plan has almost invariably been to build pavilions three or four stories in height, and not the pavilions of one story each. As an example of these, and one of the first to be erected in this country, is the Boston City Hospital, which was first occupied ten years ago. It was then considered to be quite perfect in its general plan—that of detached buldings, &c.—and was copied in other cities. Not less than five or six civil hospitals, upon essentially the same plan, have been constructed in New York city alone during the last few years. Other examples are the celebrated Lariboisière Hospital of Paris, the new St. Thomas of London, and many more; but though a great advance upon the old hospitals, these and many others have now been long enough in use to have shown that many of the grave evils still exist in them which it was sought to avoid.

The great desideratum of the sick, pure air, is not obtained in them. All systems of supplying it in needed quantities, in hospital buildings of more than one story, have failed. The elaboration, complication

and expensiveness of all the artificial systems of ventilating hospitals condemn them, making them difficult to manage, or practically unmanageable, and altogether unsatisfactory. One of the most elaborate systems of ventilation that has been developed by modern science and skill is that of the famous Lariboisière Hospital. In relation to this hospital, Dr. Evans, in his recent "History of the American Ambulance," quotes the words of a celebrated French surgeon as follows:— "Of all the Parisian hospitals, the best arranged, the one which has been constructed with the greatest care, according to all the rules of science, is the hospital Lariboisière, and the mortality there is frightful. In other words, it is a *great* hospital. It is vain to ventilate; the miasms penetrate the floors, incrust the walls, dance in the air which is breathed, and transform in a twinkle an illness of little consequence into a mortal malady." *From one, know all.* If our best modern hospitals do not stand the test of experience, do not give us the results we can surely get in other ways, what are we to infer, and what is the mistake in them? The money invested in them makes large and satisfying returns, in the admiration their noble proportions excite. The good done in them is great and not to be despised. But something more is demanded—simply that "*they shall do the sick no harm,*" that the rate of mortality in them shall be no higher than in tents, barracks and sheds, the use of which emergencies have sometimes compelled. We know now that in these last-named structures, and by the segregation of the sick and wounded, we can get a lower rate of mortality than we would dare expect in any of our modern permanent three or four story hospitals. The truth, then, is, that the nearer we approach to simplicity of construction, the better are the results and the more sick get well; and the mistake is, that most modern hospitals have been only an architectural compromise between the old system and the new one of the future.

We may soon find that the hospitals of to-day are to be regarded as only an approximation towards sound and enlightened principles, and that any small town or village can have, within forty-eight hours, by erecting one of these tents or board barracks, as good, or rather, as we have shown, a better receptable for the sick than hitherto has been attained in the largest and richest cities. It is safe to predict that the hospital of the future will give no inferior results to those we know have been obtained in temporary structures; and till as good results have been obtained in other ways, it is fair to regard the temporary as the best hospital.

It will be wise for us, then, to leave to their fitting use such buildings, with their architectural adornments, as our churches, court houses and government halls, and build for our sick what they need and what is best for them, what is within our means, and what we go without in our towns and villages, to the propagation of epidemic and infectious disease. It will be wise for us to seek rather to heal our sick than to build enduring and costly structures that may be the pride of their projectors and the monuments of their philanthropic zeal, but of which it has been predicted (by Dr. Derby) that "they will, in the future, be regarded as the monuments of those who needlessly died within their walls."

Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By Edward S. Wood, M.D.

Analysis of Human Bile.—By Oscar Jacobsen. *(Berliner d. deut. Chem. Gesellschaft*, 73, No. 14.)

The bile analyzed was obtained from a biliary fistula in a healthy man. It was clear, of a greenish yellow color, neutral reaction to test paper, and had a specific gravity of from 1·0105 to 1.0107 at 17·5° C. On evaporation, it left 2·24 to 2·28 per cent. of solid residue. During the first few days, it contained traces of albumen and leucin. No grape sugar nor urea were detected. Bilirubin and biliverdin were always present.

The solid residue left, after ignition, 37·62 per cent. of ash, the analysis of which gave the following result:—

	Per cent. of ash.	Per cent. of dried bile.
Chloride of potassium	3·39	1·276
" " sodium	65·16	24·508
Carbonate of "	11·11	4·180
Phosphate " "	15·90	5·984
" " calcium	4·44	1·672
	100·00	37·620

Besides the above constituents, were found traces of silica, iron, magnesia, and, in every analysis, copper. The last was found in that portion of the bile which was insoluble in alcohol. Further analysis gave the following results:—3·14 per cent. of the dried bile dissolved in ether, and consisted of—

Cholesterin	2·49	
Unsaponified fat, with a little oleate of sodium	0·44	
Leithin	0·21	
Portion soluble in ether		3.14
Portion insoluble in alcohol and ether		10·00
Alcoholic extract—glycocholate of sodium		44·8
Palmitate and stearate of sodium		6·4
Per cent. of dried bile		64·34

In this bile, no trace of taurocholic acid could be detected. In a series of analyses of bile, taken from the gall-bladder after death, sulphur constituted from 0·21 to 0·925 per cent. of dried bile in nine specimens, and 2·67 per cent. in a tenth specimen. In three of these, the sulphur was entirely in the form of sulphuric acid. In another series of analyses, the author found an average of 14·2 per cent. of taurocholate of sodium. Hence, in human bile, taurocholic acid may be wanting completely, but glycocholic acid is always gresent in greater or less quantity.

Estimation of Albumen.—By Girgenshon. *(Jour. de Chim. Méd.*, January, 1874, from *Neues Rep. f. Pharm.*, 1873, p. 553.)

This is done by precipitation of the albumen with tannin in the following way. Add to the liquid to be tested one half of its volume of a 20 per cent. solution of common salt, and then a solution of tannin in excess. Collect the precipitate on a weighed filter, wash first with

water, in order to remove all of the salt, and then with boiling alcohol until the filtered alcohol contains no more tannin, dry the precipitate and weigh. The weight of the filter and precipitate, minus the weight of the filter paper, equals the weight of the albumen in the amount of fluid taken.

The author concludes as follows :—" The albumen contained in the urine of nephritis differs from that found in urine in cases of accidental albuminuria. The tannin compound of the former contains 37 per cent. of tannin, while that of the latter contains about 20 per cent." The albumen of the blood serum re-acts with tannin in the same way as that of nephritic urine.

Action of Chloral Hydrate on Albuminoid Matters.—By M. Personne. *(Jour. de Chim. Méd.*, March, 1874.)

The results of the author's experiments are as follows:—

Fresh blood treated with a solution of chloral hydrate, and kept at the ordinary temperature, coagulates completely; it preserves its red color, and is not altered by a temperature of 25° to 28° C. So coagulated, it yields nothing to water.

Defibrinated blood is also coagulated by chloral hydrate, but the coagulum thus obtained, if treated with water, gives up a substance which has a brownish-red color.

If a piece of muscle be introduced into a 10 per cent. solution of chloral hydrate, it becomes a little paler, a reddish liquid exudes, which soon deposits a brick-red sediment. If withdrawn after a few hours' immersion, and kept at 15° to 20° C., it dries quickly, becomes brighter in color, and can be pulverized readily. It does not putrefy. The powder consists of a compound of albumen with chloral, soluble in an excess of either albumen or chloral.

By means of a 10 per cent. solution of chloral hydrate, M. Personne was enabled to preserve animals for several months without decomposition, and, if the solution contains one half its volume of glycerine, the tissues do not become dry, but retain their original flexibility. By this action, Personne explains the longer duration of the effects of chloral over those of chloroform, he being an advocate of Liebreich's theory of the physiological action of chloral, viz., that it acts by being decomposed by the alkalies in the blood into chloroform and formic acid. He states that the first action of the chloral hydrate upon the albuminoid matters which it meets with in the system, produces chloroform by means of the alkali of these albuminoid matters. At the same time, these deprived of alkali combine with the undecomposed chloral, this compound forming a sort of reservoir of chloroform, only yielding it gradually as the circulation destroys the compound formed. This also explains why only a very small quantity of chloroform can be found in the blood of animals killed with chloral hydrate.

Test Paper for Urea.—By M. Musculus. *(Comptes Rendus*, 78, p. 132.)

This paper is prepared by filtering urine, which has undergone alkaline fermentation, through filter paper, washing and drying the paper at 35° to 40° C. The globules of the penecillium glaucum, which cause the decomposition of the urea into carbonate of ammonium, remain attached to the filter, and their activity can be restored by placing the paper in water. After filtering, washing and drying as above mentioned, the paper is colored with turmeric, dried again, and kept for

use in a dry bottle. So prepared, it forms a most delicate test for urea. If a piece be dipped in a solution of urea, which contains only one part in ten thousand, it will soon become of a dark-brown color, owing to the action of the carbonate of ammonium formed upon the turmeric, while a piece of ordinary turmeric paper will remain unchanged.

In testing a liquid for urea, it must first be neutralized, and the test paper inserted. Carbolic acid, even to super-saturation, does not prevent the ferment from acting. Albuminoid matters are not acted upon by this ferment; i. e., they produce no alkaline reaction in the time required to form urea into carbonate of ammonium. Uric acid is also unchanged by it.

A quantitative estimation of urea can be made by placing the fluid in a flask, adding a little tincture of litmus and then the test paper. Dilute sulphuric acid is then added until the litmus is reddened, and the whole left for five or six hours at a temperature of 25° to 30° C. The ammonia formed can then be estimated by a standard acid solution.

The detection and estimation of very small quantities of urea in well-waters suspected of contamination by infiltration from water-closets, &c., may be easily and quickly made with this paper.

Indican in the Urine in Addison's Disease—(*Jour. de Chim. Méd.*, April, 1874.)

The urine of two patients, aged respectively 60 and 72 years, suffering with Addison's disease, was analyzed for many days by Rosenstein. The amount of urea was diminished, it never exceeding twenty grammes in the twenty-four hours, and sometimes falling as low as thirteen grammes. The most notable feature, however, was the increase of indican (uroxanthin). The amount of indigo found (by Jaffé's method) varied from 0·0645 grammes to 0·0753 grammes in 1000 cubic centimetres of urine, i. e., ten or twelve times the normal amount.

The Influence of Sulphates in the production of Goitre.—By M. Bergeret. (*Jour. de Pharm. et de Chim.*, January, 1874.)

M. Bergeret attributes the production of goitre to the presence of sulphates in the system. These may get into the blood either by drinking water which contains a large amount of gypsum (sulphate of calcium), or by the increased metamorphosis of muscular tissue. In one case cited to prove this, nearly all the inhabitants of a town, which was supplied with drinking-water largely impregnated with gypsum, were affected with goitre until the water supply was changed, when the disease ceased to be produced.

Analysis of the urine of a very large number of persons affected with goitre, showed that the amount of sulphuric acid in the urine was increased from two to four times the normal amount.

To detect Quinia in the Urine.—Dr. Vitali (*Jour. de Chim. Méd.*, May, 1874) gives the following process, which requires but a small amount of urine.

Add to eight or ten cubic centimetres of the urine to be examined five or six cubic centimetres of ether, and to this mixture eight or ten drops of ammonia water or sodic hydrate, and shake. After the separation of the ether, decant it into a capsule with one drop of dilute hydrochloric acid, and evaporate it by a very gentle heat. After cool-

ing, add a few drops of chlorine water, mix with a glass rod, and then add a drop of ammonia water. If the urine contains 0·05 grammes of quinia to the litre, the characteristic green color will be produced.

Potable Water.—The following, according to Dr. F. Fischer *(Jour. für Pract. Chemie,* ii. viii. 123–126), are the characteristics of good drinking-water:—

1. It should be clear, and without taste or smell.
2. The temperature should vary at different periods of the year only within narrow limits (6° to 12° C.).
3. It should contain very little organic matter and no organisms, such as bacteria, eggs of entozoa, &c.
4. It should be free from ammonia and nitrous acid, and contain no large quantity of sulphates, nitrates and chlorides.
5. It should not be too hard, and should not contain a large amount of the salts of magnesium.

One litre of water of the above kind would contain, at most, of—

Organic matter, 40 milligrammes.
Chlorine, one equivalent in milligrammes (= 35·5 milligrammes).
Nitric acid, 0·6 equivalents in milligrammes.
Sulphuric acid, two equivalents in milligrammes.
Magnesium, two equivalents in milligrammes.
Calcium, four equivalents in milligrammes.
Degree of hardness = 16·8 (German scale).

(To be concluded.)

Law of Missouri concerning the Practice of Medicine.—We furnish below a synopsis of the law passed at the last session of the Legislature of Missouri in relation to the practice of medicine and surgery in this State, approved March 27, 1874.

1. It is made unlawful for any person to practise medicine or surgery in this State, who shall not have first received the degree of doctor of medicine from some medical college or university duly established under and by virtue of the laws of the State or County in which the same is situated.
2. Every person wishing to commence the practice of medicine or surgery in this State is required to file a copy of his diploma in the office of the County Clerk of the County in which he resides, to be sworn to and subscribed by the party filing the same, and thereupon the County Clerk registers the diploma, for which a fee must be paid.
3. Persons practising, or who shall commence to practise, before the first of September, 1874, shall register without diplomas.
4. The penalty for non-compliance with the act, upon conviction, is fixed at not less than twenty-five nor more than five hundred dollars; and the fact that such person has not filed his diploma is a sufficient defence in any action which he may bring to recover his fees for professional services.—*St. Louis Medical and Surgical Journal.*

Union of two Kidneys in One.—At a recent meeting of the *Société des Conférences Anatomiques*, of Lyons, M. Odin displayed a kidney twice the normal size, removed from a fœtus born at full term. The organ was found lying immediately in front of the vertebral column, at the usual height, and had the form of a crescent with the horns directed downwards. The supra-renal capsules were excessively developed, but the ureters were of normal size.—*Lyon Médical.*

Bibliographical Notices.

History of the American Ambulance in Paris during the Siege of 1870–1871. By T. W. Evans, M.D., D.D.S., &c. London: Sampson, Low, Marston, Low and Searle. 1873. 4to. Pp. 694. From Wm. Wood & Co., New York.

This magnificent volume, beautifully and ornately printed upon tinted paper, with numerous wood-cuts, plates and diagrams, offers much more than its title seems to promise, since the first 444 pages must be perused, or turned over, at the option of the reader, before the subject of the American Ambulance is entered upon. The matter is arranged in the form of voluminous reports addressed by members of the Ambulance to their President, Dr. T. W. Evans, whose philanthropic labors in the cause of sanitary science and of humanity on the battlefield are well known. The first chapters are mainly devoted to an exceedingly long and laboriously erudite dissertation upon army hospitals and tents, by Dr. Crane, the Secretary and chief organizer of the Ambulance. In these exhaustive and somewhat exhausting essays, much valuable information is given, accompanied by an unnecessary amount of research upon subjects which can only interest us under their most modern and practical aspect. We will pass at once to the portion of the work which appears to us to be really valuable and instructive, namely, a chapter entitled "The Special Organization of the American Ambulance," by Dr. Crane, and the surgical report of Dr. John Swinburne, surgeon-in-chief.

Dr. Crane's very complete description of the organization and installation of the Ambulance is highly interesting, as exemplifying the successful use of tents during the coldest months of an unusually severe winter. The tent which was used was the United States regulation hospital tent, made of 14 oz. duck; ten such tents, capable of containing five or six beds each, were sent for to this country, and reached Paris soon after the opening of hostilities. Besides these tents, which constituted the most interesting feature of the American Ambulance, barracks were erected, and a house in the neighborhood was loaned to Dr. Evans, so that the total number of beds was raised to 150. The situation of the ambulance, though defective in some respects, was in the main very favorable; the tents occupied an empty lot near the Bois de Boulogne, quite away from the city proper, so that they might be said to have the advantage of country air.

The tents were all floored, and were arranged by Dr. Crane so as to form two long pavilions, each formed by joining together, end to end, five tents; each pavilion then contained from twenty-five to thirty beds. An important problem was how to warm the pavilions in a thorough manner, and at the same time economically, fuel being very scarce in Paris during the siege. A great objection to the use of tents has always been the difficulty of keeping them warm in very cold weather. This end was admirably accomplished by means of a very simple and ingenious contrivance known as the "*California stove*," with the use of which Dr. Crane had become acquainted during the war with the South. It consists in an underground stove, which is buried in a pit below the lower end of the pavilion, outside of the terminal tent; a shallow trench is dug in the ground under the flooring of the tents, and runs longitudinally in the median line from one end of the pavilion to the other; in this trench, lies horizontally a long smoke-stack, which emerges vertically, outside the furthest terminal tent, to a height of about ten feet. The heat generated in the stove is thus transmitted by the long horizontal pipe, through the flooring of the entire series of tents, and serves not only to thoroughly warm and ventilate the tents, but also to warm and dry the ground beneath. This means of warming tents is little known and practised, even in this country, where it originated; it proved very efficient in Paris, as the writer of this review can testify from personal experience, and, indeed, it may almost be said to have constituted the whole secret of the success ob-

tained by the tent hospital. During the siege, the writer frequently visited the various ambulances, situated in public and private buildings, as well as in temporary wooden barracks, and in the coldest weather the temperature would always be as low as 34° or 36° Fahr., when in the American tent-hospital it was ranging between 55° and 65°, and this degree of warmth was maintained through the coldest days of the winter. Thus, instead of proving inferior in this respect to ordinary buildings and barracks, the tent-hospital, thanks to the California stove, really afforded a shelter for the wounded which was more easily and thoroughly warmed than any other.

Dr. Crane, after reviewing the history of tent-hospitals, says:—"I feel confident that the facts and opinions, both European and American, which I have presented, will convince you that in proposing to establish an ambulance under the cover of canvas, not simply as a temporary, but, if necessary, as a permanent installation, we acted almost, if not entirely, without precedent."

Not only did the tent hospital prove by far the most successful in practice, compared with all the other forms of shelter which were improvised to meet the extraordinary requirements growing out of the military operations around Paris, but it presented the great additional advantage of economy. Dr. Crane calculates that the maximum expense incurred in the establishment of an ambulance of fifty beds, under such tents as were employed in Paris, would be about 125 francs for each bed. Various barrack hospitals were erected in and around Paris, of which the cost ranged between 1,000 francs (Passy) and 1300 francs (St. Cloud) for each bed.

Turning to Dr. Swinburne's "Surgical History of the American Ambulance," we find a full *exposé* of the results obtained by means of the resources placed at his disposal by the committee.

Dr. Swinburne's treatment of wounds was generally as follows:—After the removal of all foreign matter from the wound, including such fragments of bone only as might have been detached from the periosteum, the wounds were dressed with compresses dipped in warm water, and covered with some impermeable material. These simple open dressings were changed once or twice daily; dilute solutions of carbolic acid, dilute alcohol, nitric acid (gtt. 60 to aq. Oi.) &c., were used to disinfect or stimulate wounds; oakum was largely employed to support wounded parts and to absorb discharges. Thus, it will be seen that the treatment was of a very simple kind, presenting no unusual or novel features, and that whatever success was obtained was due to the good sanitary condition of the tent-hospital, as well as to the experienced care bestowed upon his patients by the Surgeon-in-chief. Although no "antiseptic treatment," strictly speaking, was used for the wounds, measures were frequently taken to disinfect the tents, previously evacuated for the purpose, by means of chlorine, evolved in thin vapors; sulphate of iron and solution of permanganate of potassa were also used.

The surgical cases treated at the ambulance reached 247 in number; of these, 114 were cases of *compound fracture*, and as some of the patients had sustained multiple injuries, the total number of compound fractures was 126; these injuries were distributed as follows:—hip-joint, 4 cases; thigh, 3; knee, 7; leg, 7; ankle, 10; head of humerus, 9; scapula and clavicle, 12; arm, 6; elbow, 4; forearm, 9; wrist, 4; hand, 11; head, 10; face, 7; chest, 10; back, 9; pelvis, 4. "Notwithstanding the large number of fractures, conservative surgery was so largely practised that, of the 126 cases, only nine seemed to require amputation of the long bones." The mortality was 47, or a little over19 per cent. of all the cases of compound fracture. "The results of these cases, as a whole, will compare favorably with those of a similar class in other wars," says Dr. Swinburne, and we will add, without fear of contradiction, that in no other military hospital or ambulance in Paris, were similar results attained or even approximated.

During the early part of the siege, the great success obtained at the American Ambulance was very striking; all the more so, when it is known that the vast Palais de l'Industrie, in the Champs Elysées, which was occupied by the Société de Secours aux Blessés, contained cases of pyæmia and ery-

sipelas within three weeks of its inauguration as a military hospital. "From the beginning of the siege to the 30th of November, 1870, above sixty wounded men were treated in the Ambulance. Of these but two died, and the immediate cause of their death was tetanus. Four of the above number were amputated through the thigh for wounds of the knee-joint; two compound fractures, one through the neck and one through the shaft of the femur, were successfully treated by conservation, and are now well, walking with crutches, and possessed of good limbs; one compound fracture of the tibia, just below the knee, recovered, but afterwards received an injury in another part, from which he died; two gun-shot fractures of the wrist, and two of the ankle-joint, recovered with useful limbs; two comminuted fractures of the scapula, a number of gun-shot fractures of the bones of the forearm, hands, feet and fibula, one resection of the shoulder-joint, for compound fracture of the head of the humerus, in a soldier suffering from large, pleuritic effusion, one wound through the chest, ball passing through the right lung, entering the third rib anteriorly, and passing out posteriorly under the scapula, besides several other serious cases, not particularly interesting in a surgical point of view, were successfully treated." . . . . . "We now come to a period extending from the 30th of November, 1870, to the end of the siege, in which food and fuel in sufficient quantity or of proper quality, were not to be had, so that all the wounded whom we received, much exhausted from exposure and want of food and fuel, were in a condition unfavorable for surgical treatment. Many were suffering from the usual camp diseases such as diarrhœa, dysentery of a typhoid character, and chills and fever. Others had been lately discharged from hospitals, where they had been under treatment for the prevalent diseases, bronchitis, pneumonia and pleurisy, and sent to field duty, and were, therefore, still very feeble. Indigestion was the rule when food was taken; while some were unable to eat, even when suitable food was offered. Subsequently to this period, the mortality was increased, owing to the causes above enumerated, and to the mortal nature of the wounds. For example, from seventeen shell wounds received from Drancy in one day, eight died in a short time from their wounds. Still later during the siege, several died from acute pulmonary disease, superinduced by deficiency of fuel. Some of the deaths, as will be seen by reference to the history of the fatal cases, occurred immediately on, or a few hours after, arrival, while others, whose wounds were equally mortal, shared the same fate at a later period. It is, therefore, scarcely necessary for me to add that the greatly increased mortality after the 1st of December was due to causes over which surgery had no control."

Dr. Swinburne gives reports of many of his most interesting cases, selected so as to exemplify the treatment used in the different varieties of severe gun-shot wounds; these reports are followed by short histories of all the surgical cases, 47 in number, which terminated fatally. Reviewing the causes of this mortality, Dr. Swinburne undertakes to show that *no cases of pyæmia occurred in the American Ambulance;* he throws aside pyæmia, and the allied forms of septic infection which are known to be by far the most common causes of death among wounded men when aggregated together in considerable numbers, and attributes the fatal termination observed in 47 out of 247 surgical cases, to a "*want of recuperative power*," due to imperfect hygienic conditions before and after the receipt of the injury. "In order," he says, "that the public may rest fully satisfied on this point, I have given a detailed history of every death." It would have been very gratifying to those who are interested in the success of tent-hospitals, if it could have been satisfactorily shown that pyæmia had been successfully excluded from the tents composing the American Ambulance; but we fear that Dr. Swinburne's demonstration must be considered incomplete, and that we must be content to claim for the tent hospital only relative and not absolute success in the attempt to exclude the deleterious influences which constitute hospitalism, and engender septic infection. Dr. Swinburne's reports of fatal cases are so summary as to be of little or no value for the purpose of establishing the non-

existence of septicæmic complications; the reports are particularly deficient in one important point; in only 11 cases was any *post-mortem* examination made, and in these it was very incomplete; in no case is there any mention of the condition of the viscera, and of the synovial and serous membranes. The non-existence of pyæmia can only be pertinently demonstrated by a thorough *post-mortem* examination, showing the absence of metastatic abscesses and other lesions characteristic of this disease.

The object with which the American Ambulance was created was not only to render material assistance to our French friends by helping them to take care of their wounded, but also to impart the experience derived from our own recent war, in which the applications of sanitary science were more effectively used than ever before. The great interest which was excited among the public, both lay and professional, by the American tent hospital, and the very complete account of its doings, published under the care of the President of the Committee, give us reason to hope that the philanthropic efforts of the promoters of the Ambulance may not have been made in vain.

The volume before us, we may say in conclusion, though somewhat marred to the exclusively professional eye by a redundancy of narrative of purely private and personal interest, and by the excessive length of the historical portions, still gives an impression of good, useful work, most thoroughly accomplished, and so it is extremely creditable to those who were in charge of the American Ambulance, and have here narrated their experience.

T. B. C.

Boylston Medical Society of Harvard University. Catalogue. March, 1874. Boston: D. Clapp & Son.

This Society has just published a new catalogue, under the supervision of a special committee appointed for the express purpose of correcting any errors which may have crept into previous catalogues. It is a matter of regret that the committee should have allowed the catalogue to be published with so many errors, nearly all of which could have been avoided if the young gentlemen who formed the committee had only asked advice of those who had had experience in the preparation of similar catalogues. A hasty examination shows from thirty to forty errors, for few of which there is any excuse. The committee are entitled to great credit, however, for the valuable addition which they have made to the list of the successful candidates for the Boylston Prizes, a list which, heretofore, was far from complete.

It is to be hoped that the next time a catalogue is printed, a careful correction will first be made of the numerous errors in the present one.

Anatomy of the Invertebrata. By C. Th. v. Siebold. Tranlated by Waldo I. Burnett, M.D. Boston: James Campbell. 1874. Pp. 470.

The merits of this work are too well known to make any review of it necessary, as the present volume does not differ materially from the previous edition. It has been for some time out of print, and we are very glad to see it reproduced.

Blow at Charlatans.—The committee appointed by the Texas Medical Society to examine the act to regulate the practice of medicine in that State, have presented the following amendment, among others, to be recommended to the legislature:—

"Section 7. Any person who is not a citizen of Texas, entitled to vote, who shall come into the State and advertise to perform surgical operations, or cure diseases, shall, before entering upon such practice, pay into the county treasury the same tax as is paid by persons exhibiting a circus performance or menagerie, and, for violating this act, parties guilty of the same shall be subject to the same penalties, to be collected in the same way, as for circus and menagerie exhibitions."

Boston Medical and Surgical Journal.

Boston: Thursday, July 2, 1874.

We occasionally see that some prisoner, who has been pardoned from the State Prison, or one who has been let out on probation, is sent back to the prison to serve a new term, or the remainder of his old one. And, again, we find that the Governor pardons some one to die among his friends and relations, because he is too sick to remain at Charlestown.

We protest against such apparent lenity. If a man has committed a crime for which imprisonment for five years is the proper amount of punishment, not one day nor one hour should be cut off, be he sick or be he well; and whether his days are to be shortened by it or not. The prison has a hospital attached to it, and there is the place for treating the prisoner. That he is to be sick away from home is the result of his crime, and is a part of his punishment. There would be as many good reasons for allowing him to choose his medical attendant, or the style of his dress, as there are for allowing him to choose the place to be sick in. The practice of pardoning one or more well-behaved prisoner once a year is a part of the same folly. A large number of criminals can behave well for the sake of getting free from prison walls, and another and equally large number can play sick to perfection, if that be the easiest way to escape from punishment. Feigned sickness is easily recovered from, and so is the real sickness, which often seems to be of the severest character. Yes, every physician knows that even consumption is recovered from. And there is just as much reason for paying the poor, sick villain's passage to a Southern climate, as there is for discharging him from bonds.

Playing insanity is one form of playing sick, and of late years it has become a cheap way to escape the gallows. Insanity is a disease, it is true; but its imitation is so easy that a large number of criminals imitate it readily. Insanity varies as much in its severity as any other disease, and, in the largest proportion of cases, the insane man knows enough not to hurt himself in the paroxysms. We are very much inclined to think that if the penalty of the law were inflicted upon one insane man, in consequence of his violating that law, the violations would not be one tithe of what they are now. Insane men are not fools.

We are perfectly aware of the hue and cry that the advocating of this plan would produce, but it would be for the greatest good of the whole.

The object of punishment is not revenge for crime already committed, but prevention of crime, which otherwise will be committed. At this day, the greater the crime, the less likely punishment seems to be; and as a consequence murder is a favorite means for preventing detection. When a murder case comes before a jury for trial, that body objects to conviction, lest they may be the means of sending into the presence of the Almighty, him who is black with sin and unable to repent and be forgiven. Just as if the Lord had lost His power over those condemned to be hanged; a moderately conceited way of expressing the superiority of human over Divine mercy.

Renewed attempts have lately been made to victimize the public by representations that a physician had become the successor of a notorious individual named Basto, in the application of a *pretended* secret remedy for fistula, piles, &c.

As is well known, the Basto method is neither a secret nor a new mode of treatment, but consists in the introduction of a seton or rag, smeared with a paste of caustic potash. The "infernal" pain (as described by the sufferers) attending each renewal of the application, and the slowness of the cure, as compared with the period of recovery under proper treatment, long ago led to an abandonment of this method by the profession; and nothing could be more absurd than a claim of value or novelty for this obsolete and barbarous practice.

The following is the list of graduates from the Harvard Medical School during the year 1873-74, with the titles of their theses. Names in small capitals are those of students graduating in February, under the old system:—

William Sturgis Bigelow, A.B.—*Unusual Results of Septic Poisoning.*
Lewis Lincoln Bryant.—*Milk.*
Edward Marshall Buckingham.—*Certain Surgical Dressings.*
George Greenleaf Bulfinch.—*Scarlatina.*
John Standish Foster Bush.—*Stricture of the Urethra.*
Leander Albert Cliff, A.B.—*Empyema.*
Charles Henry Colburn.—*Tuphlo-Enteritis.*
William Sage Crosby, A.B.—*Delirium Tremens.*
Frank Henry Davenport, A.B.—*Amenorrhœa.*
William Sawyer Dennett, Jr. A.B.—*Nature vs. Science in Midwifery.*
Marshall Perry Eayrs.—*Rational Medicine.*
Edward Waldo Emerson, A.B.—*The Thermometer in Medicine.*
Samuel Page Fowler, A.B.—*Diabetes Mellitus.*
George Minott Garland, A.B.—*Some Experiments upon the Line of Dulness in Pleuritic Effusion.*
Edwin Peabody Gerry, A.M.—*The Therapeutic Value of Subcutaneous Injections of Ergotine.*
Robert James Hallaren, A.B.—*Conjunctivitis.*
Richard Harrison—*Trephining.*
Frank Stillman Hillard—*Colchicum.*
William Barker Hills, A.B.—*Urinary Sediments.*
George Oscar Jenkins—*Secale Cornutum.*
Seth Wight Kelley, A.B.—*On the Value of Hot Milk in certain Bowel Diseases.*

Francis Boott Loring—*Aphasia.*
Stephen Crosby Martin—*Hæmorrhoids.*
Edward Jesse Moors—*Aphasia.*
William Edward Moseley—*Empyema.*
Duncan Barbour Myshrall—*Tetanus.*
George Whipple Porter, A.M.—*Empyema.*
Andrew Fairfield Reed, A.B.—*Tracheotomy.*
Thomas Morgan Rotch, A.B.—*The Emigration of the White Corpuscles in Inflammation.*
Edmund Doe Spear, Jr.—*Chronic Catarrhal Pneumonia.*
Hugh Johnstone Speer—*Pathology; its Elements.*
Flavel Shurtleff Thomas—*Poppy and its Juices.*
Edward Tobey Tucker, A.B.—*Intermittent Fever.*
Herbert Warren—*The Pneumatic Aspirator.*
William Henry Wescott—*Anæmia.*
Morris Plumer Wheeler—*Air.*
Frank Blaisdell Wilder, A.B.—*Cannabis Indica.*
Charles Herbert Williams, A.B.—*Experiments on the Action of Bile in Promoting the Absorption of Fats.*

The "Conseil General du Rhone" announces that a prize of 2,000 francs will be awarded to the author of the best monograph upon the subject of *Foundlings.* The following embrace some of the questions mentioned as worthy of especial attention in this connection:—

1. Causes which lead to the desertion of infants. What results are furnished by statistics collated at the present time?

Do our social, political and religious institutions have any tendency to increase the number of foundlings? Did the habit of abandoning young children prevail in ancient times? What literature is extant upon this subject? Is it possible to determine the exact period, at or about which the custom of deserting infants began to be extensively practised, and under what influences, social and religious, did this change occur?

2. What measures can be suggested, the adoption of which will bring about a reduction of the number of foundlings?

What become of foundlings? Compare their condition, moral and physical, with that of other children.

3. What methods can be suggested for ameliorating the physical and moral condition of foundlings, and reducing the rate of mortality which prevails among this unfortunate class?

4. What is the best plan of bringing up foundlings?—*Lyon Médical.*

Dr. W. L. Appley relates the particulars of a case of cystic goitre of twenty years' standing, occurring in a man aged 65, a complete cure of which was effected by evacuating the contents of the tumor by means of a trocar, and then introducing a rubber drainage tube, through which warm water was injected twice daily.—*Medical and Surgical Reporter.*

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Tuesday and Saturday, June 16 and 20, 1874.)

Operations were performed in the following cases :—Necrosis of Humerus, Hydrocele, Hare-lip, Fistula in Ano, Stricture of Urethra. During the week, Necrosis of Upper-jaw, Pistol-wound of Hand.

Necrosis of Humerus—in a boy eight years old. Sequestra removed from upper part, leaving behind no diseased bone.

Hydrocele—Single, in a man fifty-two years old, third tapping; last time one year ago. Now, half a pint of clear fluid drawn off by trocar and canula.

Hare-lip—double, in a baby two months old. The fissure extended into the nostrils, and communicated with a cleft-palate; the inter-maxillary bone unusually prominent. The second fissure was left for a future operation.

Fistula in Ano—in a man. Laid open.

Stricture of Urethra—of gonorrhœal origin and ten years' duration, in a man fifty-four years old. Occasionally, retention of urine, relieved at one time by gradual dilatation with elastic bougies; while under treatment, was attacked by cystitis, and neglected to pass his bougie. The stream gradually diminished, until a filiform bougie enters with difficulty, owing to contraction, and to false passages from attempts at catheterization previous to entering the hospital. Under ether, the stricture was ruptured by Voillemier's divulsor, and a large elastic catheter passed into the bladder and left.

Necrosis of Upper Jaw—in a child five years old. Since she was seven months old, carious bone had from time to time been exfoliated through a fistula near the first molar tooth and another near the edge of the orbit. This tooth was extracted, and, through the opening made, a large quantity of dead bone removed.

Pistol Wound of Hand—in a man. The ball entered on the radial side, fractured the first metacarpal bone, and lodged under the skin, on the ulnar side of the fourth metacarpal bone. Wound enlarged and bullet extracted.

H. H. A. Beach.

Correspondence.

The Portland School for Medical Instruction.

Portland, Me., June 22, 1874.

Messrs. Editors,—The past fortnight has been an unusually interesting one in medical circles in this city. The first event of importance was the annual meeting of the Maine Medical Association, which took place on the 9th inst., the session continuing three days. The attendance was very large, the papers numerous and able, the discussions animated, and the utmost good feeling prevailed. All things considered, the meeting is universally regarded as one of the most agreeable and profitable which the Association has ever held.

The other occurrence of especial note was the opening of the eighteenth annual course, and the dedication of the new rooms, of the Portland School for Medical Instruction, on last Wednesday evening, the 17th. During the past year, there has been an intermission in the operations of the school, for reasons which it is not important to specify. But the evident demand for an institution of this kind induced the physicians who had previously worked in the school to unite others with themselves, and start afresh on a somewhat different basis. Entirely new quarters were secured in the Canal National Bank building, one of the most centrally located, substantial and elegant edifices in the city. In the third story are the lecture-room and museum, while the fourth is devoted entirely to the dissecting-room. Every apartment is easy of access, well lighted, and supplied with gas and Sebago water, as well as the necessary furniture, and there are abundant accommodations for forty or fifty students. The importance of the undertaking seemed to warrant some formality at the opening, and invitations to attend the dedication of the new rooms were accordingly sent to the old students of the school, the physicians of the city, and other gentlemen prominent in various walks of life. Dr. Israel T. Dana, one of the two men who founded the school, and who has been connected with it from the beginning, had very fittingly been chosen as the orator of the evening, and gave a remarkably entertaining historical sketch of the institution—a task for which his intimate knowledge of its entire progress most eminently qualified him. I regret

that limited space does not permit a full report of the address. The following brief abstract, however, contains the essential points.

The school was organized in accordance with a resolution of the American Medical Association, "cordially approving the establishment of private schools, to meet the increasing desire of a respectable number of medical students for a higher grade of professional education than can usually be acquired under the direction of a single instructor." On this plan, the Boylston Medical School and a few others had already been established, and the physicians of Portland were not slow to appreciate the superiority of this method of instruction over the ordinary practice of "reading medicine" in the office of a preceptor. But the older men, though possessing, in a marked degree, qualities which fitted them to be teachers, were so absorbed in active professional business as to have no time to devote to students; they were willing, however, to give their countenance and support to a project of this kind. Accordingly, Dr. William C. Robinson, who had then been in practice here about seven years, and Dr. Dana, who had more recently settled in this city, agreed to take students together, and issued their first announcement in March, 1846. In January, 1858, an act of incorporation was obtained from the legislature.

From the beginning up the present time, there have been fifteen different instructors in the school, as follows:—

Dr. Robinson, from 1856 to the time of his death in '72; Dr. Dana, all the time; Dr. S. Fitch, for some months in the first year; Dr. Theodore Ingalls, in 1857; Dr. A. M. Paddock, in 1858; Dr. W. R. Richardson, 1859–61; Dr. C. H. Burbank, 1860–61; Dr. Thomas A. Foster, 1862–70: Dr. George L. Goodale, 1863–67; Dr. S. H. Tewksbury, 1866–69; Dr. Stephen H. Weeks, 1867–72; Dr. Wm. Warren Greene, 1868–72; Dr. Charles O. Hunt, 1869–72; Dr. Frederic H. Gerrish, 1869–72; and Dr. George F. French, 1871–72. Of these, five have been professors in the Medical School of Maine, namely: Drs. Robinson, Dana, Greene, Goodale and Gerrish; and the last three have been professors in two colleges at the same time. Two, Drs. Dana and Tewksbury, have been Presidents of the Maine Medical Association. Drs. Burbank, Richardson and Hunt held commissions in the army or navy. Three have died—Drs. Ingalls, Richardson and Robinson—and brief sketches of the lives and services of all were given, but the career of the latter was particularly dwelt upon. His professional ability and enthusiasm, his honorable ambition and public spirit, his faithfulness in every relation of life, his kindness to the poor, all were spoken of with a fervor and tenderness which were the natural outgrowth of a close intimacy of nearly twenty years; and the audience, composed as it was very largely of his former students and professional brethren, most heartily concurred in every word which eulogized his virtues and deplored his death.

Over one hundred and fifty students have been connected with the school. The first year saw the smallest number, two; the last year the largest, twenty. The average number for ten years past has been fifteen. The advantages of the discipline which the school affords its students have been constantly noticed in the superior standing which they have taken in the medical classes of various colleges and in the walks of private practice. Four of its students have been teachers in the school, three have been professors in the Medical School of Maine, one a professor in Bowdoin, one a professor in Harvard, one a professor in the University of Michigan. The list of those who have distinguished themselves in other public and private stations is far too long for insertion here.

After twelve months of intermission, the school enters upon its eighteenth year of instruction. Portland presents a field for medical teaching which its physicians are under obligations to develop. The instructors propose to engage in this work,

First, with true *esprit du corps*, actuated by a love of the profession, by a sincere conviction that its work of saving life, of mitigating suffering, is dignified, noble and sacred, by a purpose to inspire their students with an ardent enthusiasm in their calling.

Second, they undertake the task in the spirit of generous coöperation, each appreciating the peculiarities of all the rest, and magnanimously striving to utilize, rather than oppose, the diversities of temperament, taste and opinion which inevitably exist among men.

Third, they enter on the labor with a genuine love of truth. The facts of medicine must be clearly observed, the very fabric, the parenchyma, of the mind, must come in contact at every point, that an accurate impression may be obtained; even as the sculptor, in making a cast, takes pains that his clay shall touch every part of the surface, that the work may be true to life. This observation of facts is the basis of all our knowledge; the foundation thus laid we advance by the application of reason to them. In determining questions of science, the mind must be divested of all prejudice, must not be tied to any exclusive dogmas, nor be determined to swear in the words of any particular master. "The love of truth and fairness in searching for it" are both essential to good progress. We should approach our study with the purpose of a judge, not of an advocate.

One result of such work is a growing humility. The mind is observing the work of the Almighty and seeking to get an understanding of His infinite ways. It is only the very young student who can boast of his knowledge, and spread the gay feathers of conceit and self-satisfaction.

In the spirit of such considerations, we now dedicate these school-rooms to the study of true medical science.

After the address, speeches were made by the Rev. Edw. Y. Hincks, of the State Street Church; the Hon. Wm. Thomas, Jr., Speaker of the House of Representatives; the Hon. Israel Washburn, Jr., Collector of the Port; and Dr. Alfred Mitchell, Professor of Obstetrics and Diseases of Children in the Medical School of Maine; representing, respectively, theology, law, commerce and medicine. The speakers were all very happy in their remarks, which were received with great favor by the audience. Finally, the assembly, by invitation of the teachers, sat down to an elegant and bountiful supper at the Falmouth Hotel, where further remarks were made by Mr. A. A. Strout, Hon. W. L. Putnam and others.

The summer term commenced the next day, a goodly number of students being in attendance. Systematic daily recitations are held, familiar lectures and demonstrations regularly given, ample clinical advantages afforded and abundant facilities given for the study of practical anatomy. At present, there are twelve instructors:—Drs. Dana, T. A. Foster, Tewksbury, Weeks, Greene, Hunt, Gerrish, French, Gordon, Small, B. B. Foster, and Bray; and, if one may judge from the manner in which a beginning has been made, their anticipations of a successful course will be more than realized.

GAMMA.

Obituary.

THE LATE GEORGE DERBY, M.D.

HARVARD UNIVERSITY MEDICAL SCHOOL,
Boston, Mass., June 26, 1874.

MESSRS. EDITORS,—At a meeting of the Faculty, on the 22d inst., the following was adopted:—

"*Resolved*, That the Medical Faculty of Harvard University have learned with the deepest regret of the death of their late associate, Dr. George Derby.

"His talents, zeal and untiring industry made him preëminent in the department over which he presided, and render the loss to the profession and the community almost irreparable, while his high moral character, courtesy and genial manners greatly endeared him to us."

It was also voted that a copy of the above be sent to the MEDICAL JOURNAL for publication. Very respectfully yours,

C. ELLIS, *Dean*.

Medical Miscellany.

THE CONNECTICUT RIVER VALLEY MEDICAL ASSOCIATION will hold its July meeting at the Brooks House, Brattleboro', Vt., on Wednesday, July 8th, 1874, at 9 o'clock, A.M.

THE prompt passage by the Legislature of the resolution granting to the family of the late Dr. Derby the amount of his salary for the remainder of the year is a proper, though scanty, recognition of his service to the State.

DEATH OF A GIANT.—In the official register in Scotland, is recorded the death of an Irishman, occurring in that country in 1873, whose height was *seven feet eight inches.*

FORMULA FOR TOPICAL APPLICATION IN DIPHTHERIA.—

℞. Acidi carbolici, gtt. v.-x.;
Liquor. ferri subsulphatis, ʒi.-ij.;
Glycerinæ, ʒi. M.

PROFESSOR COHNHEIM, of Breslau, who has been suffering from illness, has recovered sufficiently to be able to return to his professional duties. Professor Pitha, of Vienna, has been obliged to visit Mentone and Meran for the benefit of his health. He is so far better that he expects to be able to return to Vienna in the autumn.—*London Medical Record.*

WATERING PLACES IN SPAIN.—The Spanish Government has just issued an elaborate series of regulations regarding bathing and mineral-water establishments in Spain and the adjacent islands. The duties, rights and privileges of the medical directors of these institutions are, *inter alia*, laid down with much minuteness.—*London Medical Record.*

A CURIOUS instance of superstition is reported from Lewiston, Me. A family there, who had lost several of its members by consumption recently, had the body of the last one who died disinterred and reburied face downward. This was in accordance with a belief that to stop the ravages of the disease in the family it is only necessary to bury the last victim face downward.—*Medical and Surgical Reporter.*

SULPHATE OF CADMIUM IN BLENNORRHAGIA.—M. Gazeau recommends injections of this salt instead of sulphate of zinc, on account of its more highly stimulating and astringent qualities. In the acute stage, the injection may be made of the strength of one-half grain to the ounce of water, to be used every two hours. Copaiba may be administered for the first few days, and cases are frequently cured in five or six days. In chronic blennorrhagia, the following combination should be used:

℞. Cadmii sulph., gr. xvi.;
Bismuth. subnit., ʒvss.;
Aq. dest., ʒiiiss.—M.

Sig.—Inject after each urination.—*Medical Times.*

HOW SMALLPOX IS SPREAD.—The following fatalities from smallpox are reported by the *North Devon Journal.* A boy of Combe Martin, an apprentice to a firm of drapers in Bristol, was lately taken ill, and sent to a medical gentleman, and almost immediately afterwards sent home by train, a telegram having been previously sent to his friends to send a conveyance to meet him at the railway station. It was a cold, raw day; and the parents, not supposing that their son was seriously ill, sent an open vehicle to bring him home. On his arriving at home, it was at once seen that the youth was suffering from smallpox. After a few days he died. The young man who fetched him from the station also took the disease and died, and the woman who nursed him is seriously ill. Two men who put the body into the coffin caught the infection, and one is reported dead. Another woman who took tea with the nurse likewise caught the disorder.—*London Medical Record.*

FINE OF A HOMŒOPATH.—An irregular practititioner was recently fined at Brest for practising without a diploma. He was a retired naval officer who had found means, during several years, to increase his income by the sale of tiny bits of sugar steeped in liquids, for the nominal sum of fivepence each. He called himself a homœopath, and openly visited patients, and gave consultations, charging the same fees as the medical men of Brest. This was no vulgar and illiterate impostor, and his success was the greater as he was a superior naval officer, and always gave his consultations in full uniform.—*Medical and Surgical Reporter.*

FORMULÆ FOR THE TROUBLESOME COUGH OF PHTHISIS.—

℞. Potassii bromidi,
Potassæ chloratis,
Ammoniæ muriatis, } aa ℥iss.
Syrup. tolutani, ℥iv. M.

Tablespoonful every two or three hours.

℞. Tincturæ opii camphoratæ, ℥i.;
" belladonnæ, ℥i.;
" hyoscyami, ℥ij.;
Spiritus lavendulæ comp., ℥i. M.

Ten drops on a lump of loaf sugar every hour until cough is relieved.—*Charity Hospital, New York.*

FOR CONSTIPATION.—

℞. Aloës Socotrinæ, gr. xv.;
Ext. anthemidis, gr. xv.;
Ext. rhei, ℥ss.;
Zingiberis pulv., gr. viii..—M.

Divide into twenty pills; one or more at night as required.—*Medical Times.*

NOTES AND QUERIES.

CAKES AND ALE.—They have "good times" at district, or, as they call them, branch society meetings in England; witness the following from a notice for a meeting this month: "Luncheon from 12 to 1, P.M. Dinner at 4, P.M., precisely. Tickets, 10s. 6d. each, *including a pint of wine.*" ***

DIED,—At Newton, June 24th, Dr. Thomas B. Hitchcock, aged 35.

MORTALITY IN MASSACHUSETTS.—*Deaths in twelve Cities and Towns for the week ending June* 20, 1874.

Boston, 113; Worcester, 9; Milford, 4; Chelsea, 6; Cambridge, 12; Lawrence, 9; Springfield, 9; Lynn, 16; Newburyport, 5; Somerville, 6; Fall River, 13; Holyoke, 10. Total, 212.

Prevalent Diseases.—Consumption, 41; pneumonia, 23.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 27th, 135. Males, 62; females, 73. Accident, 3; abscess, 1; apoplexy, 2; inflammation of the bowels, 2; bronchitis, 1; inflammation of the brain, 3; congestion of the brain, 2; disease of the brain, 8; burned, 1; cancer, 3; cholera infantum, 4; consumption, 22; convulsions, 2; croup, 1; debility, 2; diarrhœa, 3; dropsy of the brain, 7; dysentery, 1; diphtheria, 2; erysipelas, 2; scarlet fever, 4; typhoid fever, 4; gangrene, 2; disease of the heart, 7; hæmorrhage, 1; ileus, 1; disease of the kidneys, 3; congestion of the lungs, 2; inflammation of the lungs, 5; marasmus, 8; measles, 3; malformation of the heart, 1; homicide, 1; old age, 4; paralysis, 1; pleurisy, 2; premature birth, 1; peritonitis, 1; puerperal disease, 1; rheumatism, 2; sunstroke, 1; tumor, 1; uræmia, 1; whooping cough, 4.

Under 5 years of age, 65; between 5 and 20 years, 15; between 20 and 40 years, 24; between 40 and 60 years, 17; over 60 years, 14. Born in the United States, 97; Ireland, 30; other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCI.] THURSDAY, JULY 9, 1874. [No. 2.

Original Communications.

TRANSFUSION.*

By JAMES R. CHADWICK, M.D.,

Lecturer on Diseases of Women, Harvard Medical School; Fellow of the Obstetrical Societies of Boston and London.

IT is not to be expected that this operation would have found much favor prior to the discovery of the circulation of blood in 1628, and yet we come across so many mentions of it in ancient writings that we are fain to admit that the idea of reänimating the vital forces by the introduction of healthy blood into the system has been a familiar one in all ages of the world. Whether transfusion was ever practised before the 17th century, we have good reason to doubt, in spite of the affirmative testimony to be derived from many incidental references in old manuscripts.

The ancient Egyptians are said to have employed this means to cure their princes. An old Jewish document records the fact that "Naam, prince of the army of Ben-Adad, King of Syria, when attacked with the leprosy, applied to his physician, who, to effect a cure, removed the blood from his veins and replaced it with other blood." Medea is represented by Ovid as offering to restore youth and strength to Pellias by replacing his aged blood with that of a young man.

Without discussing the credibility of these and similar statements, we may pass on our historical Pegasus over the Great Dismal Swamp of the middle ages without drawing rein until we reach the 17th century. In its early years, we again find attention directed to this method of treatment, but it was not until the year 1665 that Richard Lower, an Englishman, first published a complete description of the procedure to be followed in transfusion, and performed the operation upon animals. Stimulated by the accounts of his success, Denys, professor of philosophy and mathematics in Paris, after repeating the experiments on animals, at length, in two instances, successfully transfused a lamb's blood into the human circulation. The publication of his results gave rise to the most violent excitement in Paris. One party "laid claim to the discovery of a universal remedy which would restore health, youth and vigor, assuage diseases of the mind, calm the most violent dispositions, and might even prolong life beyond its natural term." Their opponents contended that not only were these pretensions false, but that the operation was always dangerous and sometimes fatal.† Laury, for instance, an eminent surgeon, maintained that certain particles of the blood were distributed to nourish certain

* Read at the Annual Meeting of the Massachusetts Medical Society, June 3, 1874.

† Cyclopædia of Practical Medicine. Article, Transfusion.

parts of the body, and asked what would become of those ingredients of the blood which nature intended should produce the horn of a bull, if a bull's blood were introduced into the human circulation. He also thought that the stupidity and low instincts of the animal would thus be transmitted to the man. The latter party finally prevailed by unfair means, and caused the operation to be interdicted in France, unless done with the approval of a member of the Faculty of Paris.

Upon receiving this blow, transfusion again sank into oblivion, not only in France, but in other countries.

In 1818, the great obstetrician, Blundell, revived the operation in England, and clearly demonstrated its beneficial effect in persons sinking from excessive hæmorrhage. His statements found an echo on this side of the Atlantic, in a paper written by Dr. Walter Channing, of Boston, published in the first volume of the Boston Medical and Surgical Journal, in which he strongly recommends transfusion, without, however, having practised it himself.

From that time down to the present day, transfusion has had a struggle to retain its place among the recognized resources of surgery. Milne-Edwards, Diffenbach, Bischoff, Polli, Nicholas, all strove to elevate it to a legitimate position, but it has only been during the last few years that its claims have been admitted. This result has been principally achieved by the writings and researches of Oré in France, Gesellius in Russia, Hasse in Germany, Aveling, McDonnell and Higginson in England. A fresh impulse to the study of transfusion, and to its more extensive employment, was given about a year ago by the report of a successful case made to the Obstetrical Society of London, by Dr. Aveling, and the exhibition of a very simple instrument, by means of which the blood can be transferred directly from vein to vein without the defibrination which has heretofore proved the greatest bar to its general adoption. Since then, English, French and German journals have been teeming with reports of cases, experiments, &c.

Having thus briefly glanced at the checkered history of transfusion, let us consider some of its physiological bearings. Writers upon this subject have all failed to emphasize the great distinction between the classes of cases to which the operation is applicable, and have, consequently, lost sight of the special and different indications which call for the operation in each of these classes. It will be the chief object of this paper to set forth the elementary physiological principles on which transfusion must rest, and then deduce from them some rules to guide us in the employment of this method of treatment. We all know that transfusion has been performed in acute anæmia consequent upon excessive hæmorrhage, in cholera, phthisis, cancer, chlorosis, mania, dysentery, pyæmia, septicæmia, &c. I propose to divide the cases in which transfusion may be practised, with a reasonable prospect of benefit, into four groups, basing the distinction upon universally accepted views as to the constitution of blood in health as compared with that in the various diseases which result in an altered condition of the fluid. I suggest this classification as the only one possible in the present state of science, but I foresee and predict that further researches of physiologists will render a much closer discrimination possible, and lead to a much more rational use of transfusion. Let us take up each class separately.

First, a patient, most often a woman after childbirth, has profuse

hæmorrhage; she lies motionless, moaning, bathed in a cold sweat; her pulse cannot be felt; the heart beats feebly, and threatens to cease at any moment; stimulants fail to arouse the vital forces, and we turn to transfusion as the only remaining resource whereby to rekindle the flickering spark of life. How, then, does transfusion effect this result? The first and essential indication is to keep the heart beating; but, before we can expect to accomplish this, we must understand clearly why its action is failing. Here, I believe, authors have been at fault in overlooking the chief factor. They have, so far as I know, all sought to ascribe the enfeeblement and ultimate arrest of the heart's action to the cerebral anæmia and the consequent withdrawal of the necessary stimulation. If my theory, however, is correct, the heart ceases to beat, in a great measure, under the influence of a purely physical law. Before it can contract, the heart must dilate, but this it cannot do unless the afferent veins are in condition to pour into its cavities the needed supply of blood. If they are empty, and cannot fulfil this requirement, the heart is held in a stronger than giant's grip. This condition is not produced in a moment of time; as the blood escapes from the peripheral vessels, a gradually diminishing amount returns to the heart, and thus its dilatation is more and more impeded, and, finally, its action altogether arrested. To meet this emergency, the infusion of any innocuous fluid into the vessels would suffice to free the heart from bondage, but physiology now steps in and claims for the organism a constant distribution of oxygen throughout its numerous members, and an equally uninterrupted removal of carbonic acid; these failing, we have asphyxia and speedy death. These two processes are carried on by means of the red blood corpuscles; if they are not circulating in sufficient numbers, the relative proportion of oxygen and carbonic acid in the system is disturbed, the brain consequently ceases to perform its functions, and the heart to beat. I do not mean to imply that the two laws, adduced to explain the cause of death after excessive hæmorrhage, act independently of each other. The influence of both is undoubtedly felt from the outset; but I do assert that neither can be disregarded in studying this question. Some authors strive to explain the good effect of venous transfusion by supposing that the blood "goes direct to the heart, which is stimulated to increased action by the presence of its natural stimulant;"* this explains nothing. Other processes are unquestionably carried on by the blood in its circuit, but we know of none whose interruption is immediately followed by ominous symptoms or death. They may, therefore, be practically overlooked in this category of cases. We thus have two indications to fulfil: first, fill the vessels with a fluid, so that the heart will not have to struggle vainly against one of nature's physical laws; and, secondly, let that fluid contain enough blood corpuscles to dispense oxygen and remove carbonic acid throughout all parts of the economy, in quantity proportionate to their several needs. It is evident that blood alone will meet those requirements. The presence or absence of fibrin, which has been much discussed from a physiological standpoint, is clearly of no importance, so far as the immediate demands of the system go, unless it is needed to preserve the viscosity of the blood as essential to its steady circulation—to ensure the integrity of the red corpuscles—or to prevent serous exudations. These

* Dr. Madge, in Obstetrical Journal of Great Britain, ii. 2, p. 128.

possible dangers have not been satisfactorily demonstrated as facts, so that I may venture to say that, provided coagulation of fibrine can be prevented during the blood's transit from one vascular system to the other, we may practically ignore the mooted question of defibrination.

In the second series of cases, I include those diseases such as cholera, dysentery, perhaps anasarca and other serous effusions, in all of which the watery elements alone are extracted from the blood; the vessels then partially collapse, and the heart, as before, falls a prey to nature's abhorrence of a vacuum. Many of the nutritive ingredients of the blood may, unknown to us, be lost with the serum; but the blood corpuscles remain, as does our ability to resuscitate the patient, if we can provide a means of carrying them on their errands throughout the system. Inject any fluid which will not destroy the integrity of the blood corpuscles and the patient is saved from the immediate danger. This explanation accounts for the great revival reported from the infusion of salt and water in the prostration of cholera; clear water having been shown to cause the blood corpuscles to swell, and, finally, become disintegrated. The ultimate death of most such patients, after a real, though temporary improvement, would rather indicate that the salt and water had some subsequent deleterious influence, the effect of which does not declare itself for a day or two. With a view to the permanent recovery of these patients, it will, therefore, be advisable to inject blood, until physiologists have discovered an artificial serum, devoid of all harmful properties, or until it should be found that the mass of blood corpuscles is made by transfusion so excessive as to render the blood too thick to circulate freely.

The third class embraces all those cases in which, through some occult failure of the digestive, absorptive, assimilative, or other vital processes, the blood is so wanting in nutritive elements as to be unfit to make good the waste of tissue throughout the economy. Transfusion is here resorted to for the purpose of supplying a fluid that contains every kind of food, which the system requires. I especially include every nutritious constituent, because the present position of science rarely enables us to penetrate so deeply into the mysteries, even of our physical nature, as to determine what special element is wanting to restore the blood to its normal composition in any given disease. Blood is again the only fluid which, as far as our present knowledge goes, will meet the wants of the system. The question of defibrination now assumes a vital importance, and its permissibility depends upon whether we accept the doctrine that fibrine is only one form of albumen, and thus a nutriment, or agree with other physiologists, who are led, by "its absence from the blood which has passed through the great depurating organs of the body,"* to regard it as a purely excrementitious element; in the latter case, its removal from the blood to be infused becomes an act of purification, and renders the blood better fitted to perform its functions. This last argument loses much of its force, however, when we reflect that the same office of defibrination is, by the admission of those who lay stress upon this point, thoroughly effected by a single passage of the blood through one of these depurating organs.

The fourth and last category contains those cases in which, owing to the inefficient performance of the eliminative functions, or to the

* Dr. R. McDonnell. Obstetrical Journal of Great Britain, i. 8.

introduction of injurious matter from without, the blood is so charged with noxious elements as to poison all the parts of the system through which it flows. Here our chief aim is, not to put anything into the circulation, but to take from it these pernicious ingredients. Uræmia, pyæmia, septicæmia, perhaps cancer and others, play the chief rôle among these diseases. We must remove the poison by some means, before it destroys life; this might be accomplished by banishing the source of contamination, by promoting the elimination of the poisonous substances through the natural excretory organs, by introducing into the circulation an antidote which would render the noxious elements harmless, or, finally, by substituting a healthy for an unhealthy blood, thus getting rid of the infectious ingredients. All these methods have often been known to fail; the last has been proposed as offering theoretical advantages, but I cannot learn that transfusion has proved of permanent benefit in such cases.

To sum up: Healthy blood is—physiologically speaking—the best fluid for infusion in every class (except, possibly, in the second) where the treatment is to be directed at increasing or bettering the circulating medium; but, as fresh human blood is not always to be obtained at a moment's notice, it may be well to consider whether other fluids may be used with any prospect of success. Animal blood comes up as the most natural substitute, and has been fully tested by many observers. Quite recently, Hasse, in Nordhausen, has published thirty-nine cases in which lamb's blood was transfused into man; his results showed marked improvement in fifteen cases, temporary relief in thirteen, no improvement in two, and one immediate death. Such results appear to refute conclusively the experiments and theories which would make animal serum a solvent of human blood corpuscles, or represent animal corpuscles as incompetent to carry oxygen and carbonic acid in the human circulation, because they differ in shape and size from human corpuscles. It is certainly a wise precaution always to select, as the blood-donor, a lamb or a dog, since in them the corpuscles are smaller than in man.

In the first category, blood is evidently indispensable for tranfusion, because blood alone contains the corpuscles required to distribute oxygen or remove carbonic acid. It would also seem fruitless to seek for any artificial substitute in such instances. It is different, however, with the second class, where a harmless fluid only is requisite. Experiments directed to solve the problem here involved are likely to succeed. In the third class, we practically seek to introduce already digested and perhaps assimilated food, thus relieving exhausted nature from the task of performing the process. The circulating fluid is probably not much reduced in volume, so that, before infusing new blood, we must remove some of the old, or a dangerous state of general plethora may result. Again, in this class, as in the fourth, a single transfusion, though occasionally giving nature time to rally its forces and thus turn the scale, more often fails to be crowned by marked success or failure. The cause of the depraved or contaminated state of the blood is apt to be still acting, so that the operation must be often repeated if we are to hope for a permanent good result; a single meal of digested food thus introduced, or a single abstraction of poisonous matter, avails but for the moment.

Having thus briefly shadowed forth some of the general physiologi-

cal laws on which transfusion is based, I will proceed at once to discuss the operation and the principal methods employed.

The immediate effect of injecting blood into the veins is varied; the veins swell, the skin of the arms becomes red, perspiration forms upon the face; dyspnœa and a feeling of fulness in the abdomen soon succeed the earlier symptoms. Sometimes there is vomiting, an irresistible inclination to go to stool. Finally, headache, giddiness and fainting. Pain in the back is invariable, often persisting for several days. Shivering and a rise of temperature of several degrees take place within an hour of the operation. Later, a profuse perspiration and sound sleep, from which the patient awakes much refreshed and strengthened. Albumen and hæmatin are sometimes found in the urine on the following day, but no blood corpuscles.

Dr. Madge* has formulated the principal methods as follows:—

1. Transfusion with defibrinated blood.
2. Mediate transfusion with pure blood.
3. Immediate transfusion from vein to vein.
4. Immediate transfusion from artery to vein.

1. Transfusion with defibrinated blood has thus far been the method most in vogue, its chief English advocate being Dr. Robert McDonnell, of Dublin. He regards defibrination as an essential condition, for the physiological reasons already cited, but more especially because of the rapid coagulation of pure blood and the consequent liability to the formation of small emboli, to which he attributes, rather unjustifiably I think, all the deaths which have occurred within a few days after the operation. Moreover, it has been shown that very small coagula almost invariably form, even in blood that has been whipped and strained, and that the corpuscles in such blood adhere together in rolls, and are, not improbably, altered by the treatment to which they have been subjected. Finally, it may be objected that of seventy transfusions with defibrinated blood, only eighteen have been successful.† Dr. McDonnell has operated in several cases, with three or four favorable results. His procedure is to catch the blood in a basin, and whip it with a stick, or better still on the grounds of cleanliness, with a glass rod. In two or three minutes, the fibrine is found adhering to the rod, when the blood must be strained several times through fine linen. It is then ready for use, and is placed in a glass cylinder, capable of holding six ounces, shaped like a syringe, but devoid of a piston; to the nozzle is affixed a long rubber tube, with a canula at its extremity for insertion in the vein. The blood is driven into the vein by gravitation, aided by a small propelling bulb in the middle of the tube, and the occasional gentle blowing of the operator, with his mouth applied to the open top of the cylinder.

2. Mediate transfusion with pure blood has been performed by Mr. Higginson, of Liverpool, in fifteen cases, of which ten were successful. His instrument resembles a syringe, but is bulky, owing to the precautions taken to keep the blood and the instrument warm, and to prevent the entrance of air into the vein. These contrivances would seem superfluous, in view of the recent discovery that heat promotes coagulation, and cold retards it. The entrance of air into the veins is, moreover, not now regarded with the same apprehension as of old,

* British Medical Journal, January 20, 1874.
† Gesellius. Die Transfusion des Blutes, p. 109. St. Petersburg, 1873.

for Oré has shown that, although a large quantity of air, forced into the femoral vein of a dog, will cause death in a few minutes, a small quantity may be introduced with impunity.*

3. Immediate transfusion from vein to vein has been revived and perfected by Dr. Aveling,† whose instrument as he very justly remarks forms an anastomosis between the circulatory system of the two individuals (they become Siamese twins for the time being). It consists of a rubber tube, about a foot long, with a bulb at the centre. Two canulæ are inserted into one of the larger brachial veins of the patient and of the blood-donor respectively—the former being directed toward the heart to discharge the blood, and the latter toward the periphery so as to receive it. There are no valves to the pump, for fear they might become centres for the formation of fibrinous clots; as a substitute for them, the finger and thumb of the left hand are made to compress the tube on one or the other side of the bulb, according as the bulb is expected to forward its contents toward the patient or to re-fill itself from the veins of the donor. Before being affixed to the canulæ, the tube is filled with warm



* Etudes sur la Transfusion du Sang. Paris, 1868.
† Obstetrical Journal of Great Britain, i. 5 and 6.

water, so that the first syringeful injected is pure water; this has not proved deleterious. This process is repeated as often as is thought desirable, the amount of blood transfused being gauged by the number of times the pump is emptied, its capacity being two drachms. This procedure of Dr. Aveling's has been seven times successfully applied in England, and it certainly offers more advantages than any of the others. These advantages are thus stated by the author:—

a. The exact quantity of blood required is taken from the donor, and no more.

b. No delay is caused by previous complicated manipulations of the blood, it being allowed to pass from vein to vein physiologically unchanged.

c. The chances of coagulation are small, because the blood is removed from the action of the living vessel for only a few seconds, and glides smoothly through the India-rubber tube, without being exposed to the air.

d. The apparatus is effective, simple, portable, inexpensive, and not likely to get out of order.

e. The operation is safe, uninterrupted, and a close imitation of nature.

4. Immediate transfusion from artery to vein is the oldest form, and was not, at the outset, very difficult, as the early operations were confined to animals. The direct transfusion of the arterial blood of a lamb into the veins of a human being is illustrated by the cases of Dr. Oscar Hasse,* already referred to. He claims that lamb's blood is preferable to human as being stronger and more stimulating. No one has yet been bold enough to recommend, or practise the opening of an important human artery for the purpose of arterial transfusion. The advantage of arterial over venous blood seems questionable, when we consider that the blood injected, before being distributed throughout the system, is oxygenated and decarbonized by its passage through the lungs, and is thus virtually arterial before it is called upon to perform its functions.

One point, and I have done. The quantity of blood transfused at one time should not exceed six or eight ounces, no matter how great has been the hæmorrhage, or how profound the prostration; larger quantities, though not always harmful, have, on one or two occasions, proved fatal, and at the autopsies the cause of the death has been attributed to plethora.

In conclusion, I would disclaim all desire or qualification for pursuing the study of this subject into the more abstruse physiological processes, but have merely sought to make out a rough chart for the use of future investigators.

Dr. Simbat, in the *Thèses de Paris*, 1874, No. 73, shows the good effects which may be obtained by the use of Canquoin's paste in the treatment of fistula, and particularly in the use of anal and even urinary fistula. The chloride of zinc is employed with advantage in the treatment of fistulæ, in consequence of the granulating power it imparts to their walls; by reason of the facility with which it is applied; also in consequence of the absence of the accidents which might accompany wounds from cutting instruments; and, lastly, because it is more likely to prevent recurrence of the evil than other methods of operation.—*London Medical Record.*

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* Vide Allgemeine Wiener Medizinische Zeitung for December, 1873.

Progress in Medicine.

REPORT ON MEDICAL CHEMISTRY.

By Edward S. Wood, M.D.

[Concluded from page 12.]

Toxicology.

Analysis for Hydrochloric Acid in the Stomach.—The detection of *free* hydrochloric acid in the stomach is, as is well known, extremely difficult on account of the presence of combined chlorine, which exists normally in the tissues. The method proposed by L. Bouis (*Annales d'Hygiéne*, April, 1874) for accomplishing this object consists in the formation of free chlorine by adding the binoxide of manganese, and gently heating. The chlorine, which is formed with free hydrochloric acid, and not with common salt or a chloride, is recognized by paper moistened with a solution of iodide of potassium and starch paste, which is colored blue by the chlorine. The absorption of chlorine by the organic matter sometimes prevents its detection in this way, hence another method is also recommended to be used in connection with the above. This process depends upon the fact that nitre heated with free hydrochloric acid will produce aqua regia, while if heated with common salt or a metallic chloride no such change will take place. The presence of the aqua regia is recognized by its solvent action on gold leaf, and from the amount of gold dissolved can be calculated the amount of free hydrochloric acid present. Chlorate of potassium acts in the same manner as the nitre. If the liquids are too dilute, they can be concentrated by evaporation on a water bath. By the last method the author has been able to recognize several centigrammes of hydrochloric acid in a large quantity of fluid.

Poisoning by Arseniuretted Hydrogen.—Nine cases of poisoning by this gas (three of which were fatal) are reported in detail in the *Vierteljahrschrift für Gericht. Medecin* (April, 1873), by Dr. Frost. These cases add materially to our knowledge of poisoning by this form of arsenic, since there are so few cases on record.

These persons were poisoned by inhaling the gas which was set free in a new process for extracting silver from metallic lead. This process consisted in causing the silver to combine with zinc by introducing the latter metal into the melted lead. The compound of the zinc and silver rises as a scum to the surface and is removed. The silver is then obtained by treating this compound with hydrochloric acid, which forms the soluble chloride of zinc, and the insoluble chloride of silver, from which the metallic silver is obtained in the ordinary way. It was found necessary to constantly stir the mixture of metal and acid. The action of the acid upon the zinc forms nascent hydrogen, which will combine with arsenic, if any be present, just as in Marsh's apparatus. The arsenic in this case was derived not only from the lead and zinc (which frequently contain it as an impurity), but also from the hydrochloric acid, which, upon analysis, proved to contain a large quantity (0.027 per cent.).

Some of the workmen were affected on the first day, others not till the second. All who were engaged in the operation of stirring were affected.

Those who recovered were affected during the first two days with loss of appetite, nausea, dizziness, gaseous eructations, sweet taste in the mouth, tremendous pain in the limbs, yellow appearance of the skin and conjunctivæ, narcotic sleep, from which the patient could be roused quite easily, a sensation of weariness in the legs, bloody urine and bloody stools. On the third day, the patients were found in a deep sleep, with jaundice, high temperature, pulse 100 and more, difficult respiration, tongue dry, and covered with a white coat. On being roused, the patients complained of an intense pain in the head, a dirty taste in the mouth, great thirst, and excessive pain during micturition. The somnolent condition lasted about five days; the pain during micturition lasted three or four days, when the urine gradually became free from blood, and the jaundice began to disappear in four or five days. The patients were confined to their beds for two or three weeks, and could not resume work for several months.

In the fatal cases, the same sensations in the limbs were perceived, and there were, also, headache, nausea and vomiting, fluid stools, bloody urine, jaundice, small and rapid pulse (150–160), delirium and stupor, from which the patient could be roused, and death, which took place in one case in a little more than twenty-four hours after the commencement of the symptoms, in another in about two days, and in the third case in five and one-half days.

At the autopsy, a dirty yellow coloration was noticed in the skin and all of the tissues. In one case, a garlicy odor was evolved from the fluid which flowed from the mouth and nose; a thin layer of bloody serum covered the arachnoid; the large vessels contained a little dark blood; the kidneys were congested, and dark-red in color, and the bladder was empty, or nearly so. In one case, a patch of the mucous membrane of the stomach, about two inches square, upon the posterior surface had a dark-gray appearance, and was easily raised from the sub-mucous tissue.

Arsenic was detected in all of the tissues and fluids which were submitted to analysis, in the stomach, blood, fluid which flowed from the mouth, kidneys, heart, lungs and bronchi. Arsenic could not be detected in the urine of one of the patients who recovered.

Acute Poisoning by the Chromate of Lead.—Two fatal cases of acute poisoning by chrome yellow are reported in the *Vierteljahrsch. für Gericht. Medecin* (Jan., 1874), by Dr. von Linstow. These cases occurred in children, aged, respectively, 1¾ and 3½ years, and the poisoning was caused by sucking an unknown number of small, yellow substances, which had been used for ornamenting pastry, and which consisted of gum tragacanth and chrome yellow. A piece measuring 13+5 millimetres yielded, on analysis, 0.278 grm. of gum tragacanth, and 0.0042 grm. of chromate of lead.

Chromate of lead, on account of its insolubility, has never been considered an active poison, and the fact that it is used so largely as a pigment for coloring not only ordinary substances, but also children's playthings, and even articles intended for food, such as confectionery, &c., renders these cases of more than ordinary interest. The extent of its use in confectionery can be seen by an examination of the report of analyses of confectionery, by H. B. Hill (*Mass. State Board of Health Report*, 1873, p. 390). Thus 77 samples, both white and colored, were analyzed; 21 were colored yellow, and in 17 of these the pigment

consisted entirely of chrome yellow, in 2 partially; of 12 specimens which were of an orange color, the pigment in 9 consisted entirely of the chromate of lead, and in 2 partially; 7 specimens of green were examined, 6 of which contained chrome yellow mixed with Prussian blue in five specimens, and with Scheele's green in the other. Of the 77 specimens examined, 36, therefore, contained the chromate of lead.

The symptoms of poisoning did not commence until several hours after the ingestion of the chrome yellow, which took place between 9 and 11 A.M. Both children were taken sick at the same time (between 2 and 3, P.M., of the same day) with vomiting, which lasted for several hours. The vomitus was yellow in color. There was great prostration and extreme thirst, but no diarrhœa and no pain. On the second day, both had a hot and red countenance, and were stupid. The younger, about twenty-four hours after the commencement of the symptoms, had a slight diarrhœa and convulsions, which continued until death, which took place in forty-eight hours. On the third day, an erythematous eruption appeared on the chest and abdomen of the elder. He was dull and stupid, and the temperature in the axilla was 39.5°C. On the fourth day, the pulse and respiration became irregular, the breath extremely fœtid, stupor and unconsciousness came on, and the patient died five days after the ingestion of the poison.

After death, the mucous membrane of the stomach and duodenum was found swollen and loose, so that it could easily be raised from the sub-mucous tissue; it was inflamed, as was also that of the œsophagus, throat and larynx. In some places, the mucous membrane of the stomach and duodenum was entirely destroyed, and in one spot perforation had taken place, showing that the chrome yellow had a corrosive action. These appearances were probably not caused by the chromate of lead, as such, but by soluble compounds formed after the pigment had lain in the stomach some time, and had been decomposed.

Besides the above appearances, there were found also hyperæmia of the brain and its membranes, beginning fatty degeneration of the liver, commencing icterus, hyperæmia of the kidneys, suppurative pyelitis, and a softened spleen; conditions which are often seen after death from poisoning by other corrosive poisons.

The number of these yellow ornaments ingested by the children could not have been more than six, since only seven were given them to play with, and one was afterwards recovered. If each child had eaten three of these, the fatal dose was less than 0.01 grm., or between $\frac{1}{5}$ and $\frac{1}{6}$ of a grain of the chromate of lead.

The Action of Alkaloids on Albuminoid Substances.—By M. Y. Rossbach (*Neues Repert. für Pharm.*, xxii. 512–544).

Experiments were undertaken to explain the action of the alkaloids in diminishing the oxidation in the body, and it was found that, by the addition of neutral salts of the alkaloids (salts of quinia, strychnia, veratria, morphia and atropia were used) to solutions of egg albumen, the temperature required for the coagulation of the latter was lowered very much; that solutions so dilute that no turbidity was produced by boiling the aqueous solution became turbid at 59°–62° C., when a trace of a neutral salt of an alkaloid was present; that more turbidity

was produced by heating solutions of albumen if an alkaloid were present than with the simple aqueous solution; and that this altered coagulability is due to a true chemical combination taking place between the alkaloid and the albumen. The compound formed has the properties of an alkaloid. No combination takes place between 1° and 10° C.

The same results were produced with the blood serum, and the juice of muscle, and it is concluded that dissolved albumen is converted by the alkaloids into a less soluble substance, which is a compound of albumen with the alkaloid.

The alkaloids were also found to unite with hæmoglobin, but they do not prevent it from acting as an ozonizer. They do, however, seem to bind the oxygen more closely to the hæmoglobin, so that it is not given up so readily to other bodies.

Carbolic Acid.—By E. Jacquemin *(Journ. de Pharm. et de Chim.*, Feb. 1874).

On account of the many uses to which carbolic acid has been applied, and the increasing frequency of cases of poisoning, the author has made experiments to obtain easy methods for its isolation and detection.

In addition to the ordinary tests, the odor, coagulation of albumen, the formation of picric acid by means of nitric acid, the blue color formed with the sulphate of iron, &c., the author recommends another, which is far more delicate. It depends upon the formation of the erythrophenate of sodium (a blue substance which possesses very strong coloring power) by adding to the suspected fluid a drop of aniline and then chlorinated soda. A blue color is the result. This test will detect one drop of carbolic acid in two litres of water, a dilution of about one part in 66,000.

In separating the acid from the tissues and fluids, M. Jacquemin dispenses with the process of distillation as recommended by Dragendorff. The blood, for example, is treated with a two per cent. solution of sulphuric acid for an hour, strained, mixed with an equal volume of alcohol (90°), and filtered. To about 30 cubic centimetres of the filtrate, sodic carbonate is added to neutralize the sulphuric acid, then a part of a drop of aniline, and, finally, some chlorinated soda; this will mix irregularly with the fluid, and produce the blue color at the bottom of the vessel first; upon stirring, the whole fluid will become colored.

Dufour on Pregnancy with Persistent Hymen.—M. Dufour *(Archives de Toxicologie*, June, 1874) was consulted by a lady for some abdominal enlargement. On feeling the tumor, the movements of a child were apparent. On proceeding to make a vaginal examination, his finger was prevented from entering the passage by a complete circular band, which ocular demonstration proved to be the hymen. In leucorrhœa, the parts sometimes become much relaxed, and rendered thereby very dilatable, so that, under certain circumstances, the act of coitus may be completed without any rupture of the hymen. In this case, the patient said that she had never suffered from the "whites," and this was substantiated by the condition found.—*London Medical Record.*

Bibliographical Notices.

Annual Report of the City Registrar. Boston. 1874.

THE annual report of the City Registrar, with its complicated arrangement of births, marriages and deaths, has just been received. As this is the first report which has been published since the establishment of the Board of Health, its appearance has been anticipated with considerable curiosity by all interested in the sanitary welfare of the city.

The Board of Health was established just at the close of the year 1872, and the City Registrar's report for that year showed that the death-rate in the city was 30·5 in a thousand. When it is remembered that the average death-rate for the city for the ten years ending 1869 was only 23·7, the high rate reached in the year 1872 was of itself sufficient proof of the necessity for some change in the administration of the health department at City Hall.

In accordance with the demand for a change, as expressed by the ballots thrown by the voters in the municipal election of 1872, the Board of Health was created, and at once a change for the better took place. The death-rate for the year 1873 has fallen to 28·45 in a thousand. This rate is, of course, far from satisfactory, but it must be remembered that the epidemic of smallpox was not fairly under control until March, the deaths from that disease *alone* in January and February amounting to 266. Moreover, scarlet fever has prevailed in the city to a degree far in excess of that known for many years past, the number of deaths being 474, or an increase of 216 over the number recorded in the preceding year. It is also well known that when, owing to the occurrence of any epidemic like smallpox, cholera, &c., the death-rate of a city is largely increased, the return to its average ratio is gradual, owing, probably, to the general depreciated health of a large proportion of the population.

Taking into consideration, therefore, the prevalence of smallpox during a portion of the year, the presence also of what might almost be considered an epidemic of scarlet fever during a considerable part of the whole twelve months, and the generally depreciated sanitary condition of the inhabitants, as the result of the smallpox epidemic of 1872, it is not to be wondered at that Mr. Apollonio, at the close of his report, congratulates the city on the manifest improvement in the machinery employed to carry on the sanitary police department of the city, which he justly considers has been energetically and intelligently conducted.

It is a matter of regret, however, that the report should contain a number of important errors, as well as some serious misstatements. As an example of the former may be cited (p. 21) the phrase "more than *half*," which should read "more than *quarter*;" also (p. 53) the statement made that "in *two years* only (1853 and 1854) within the last 25 has the death-rate reached the present one (28·45)," which should read "in *three years*, &c.," since in the same paragraph the figures show that in 1872 the death-rate reached 30·5. As examples of misstatements or misrepresentations, unintentionally made, of course, but still calculated to mislead the reader, may be quoted the statement (p. 53) that scarlatina did not exist to any greater extent during the year (1873) than for a number of years past, while in another place (p. 38), the same writer states that this disease was *very prevalent*, the number of deaths being nearly *double* what it was in the preceding year. Again (p. 17), the total number of deaths each quarter of 1872 is omitted, the "percentages" being erroneously printed under the column-heading of "totals," and below occurs a statement which would convey a wrong impression to a hasty reader, namely, that "the mortality during the first quarter was nearly 6 per cent. greater than that of the same period of the preceding year." True, but why not state the reason, namely, that that quarter witnessed the decline of an epidemic (smallpox), which did not exist during the corresponding quarter of 1872? The rest of the year, the number of deaths was

less than in the rest of the year with which comparison is made, *the rate of mortality constantly decreasing from the time when the smallpox epidemic ceased.* Again (p. 14), he states that there were, leaving the deaths from smallpox entirely out of the question, 215 deaths in favor of the mortality of 1872 over that of 1873; but he forgets that, further on, he accounts for this by the statement (p. 38) that the deaths from scarlet fever numbered 216 more in 1873 than in 1872.

It is sincerely to be regretted that one who so evidently wishes to add his testimony to the good results which have followed the establishment of the Board of Health should, through errors of judgment and observation alone, have prevented the figures of his own report from being rightly interpreted. Had he simply presented those figures without any remarks or reasoning of his own, the subject of the high death-rate of the city would not have assumed the serious aspect alluded to by him in the general remarks with which he closes his report. It is only when he begins to reason falsely from erroneous statements that he becomes alarmed about the death-rate, which, owing to the careful management of the Board of Health has, in one year, been reduced from 30·6 to 28·45, and this, too, notwithstanding the existence of serious obstacles.

Perforation of the Rectum by Foreign Bodies, Complicated with Strangulated Hernia.—A policeman, aged 50, was admitted into St. Mary's Hospital, London, during the evening of March 30th, on account of a large, strangulated inguino-scrotal hernia. The hernia was reduced, with some trouble, but the abdominal distress and vomiting continued throughout the night, and by noon of the next day (31st) the ejected matter had assumed a stercoraceous character, and symptoms of severe peritonitis had supervened. At a loss to account for these distressing symptoms, a more careful examination was instituted, in the course of which, the surgeon, having inserted his finger into the rectum, struck a round mass, about the size of an apple ; this he extracted, together with another similar mass, which proved to be pieces of flannel rolled into balls. Two other harder masses were then reached, which, having been brought away by means of enemata, turned out to be pieces of soap, each about three inches long, by two inches in breadth and depth. Soon after this, the patient became suddenly worse, complained of excruciating pain in the lower part of the abdomen, sank rapidly into a state of collapse, and died the same evening. At the necropsy, the abdominal cavity was found to contain a considerable quantity of sero-purulent fluid, and the intestines were glued together by recent lymph; the peritonitis had been general, but most intense in and near the hernial sac. On looking into the pelvis, a considerable amount of fæcal matter was found extravasated through a round, ulcerated opening in the upper part of the rectum, while lower down was another slough, just on the point of giving way; the mucous membrane of the rectum was of a very dark color throughout, almost in a state of gangrene. The presence of these foreign bodies in the rectum was ultimately accounted for in the following way. When going out for night duty, on the evening of the 28th, he was suffering from an attack of diarrhœa, and, to stop this, he inserted the pieces of soap, being anxious not to soil his uniform; the soap proving ineffectual, he afterwards inserted the two pieces of flannel, which seem to have the desired effect, and to enable him to finish his allotted term of duty. The substances thus inserted he was unable to remove, and during the following day (the 29th) he had pain in the lower part of the abdomen, and vomited. The retching, excited by the presence of the foreign bodies in the rectum, appears to have caused an unusual amount of the intestine to be forced down into the hernial sac, which had existed for several years, and hence strangulation ensued. Peritonitis then set in from the double starting-point of the strangulated hernia and the inflamed and distended rectum. The perforation of the intestine, which was found to be about eight inches from the anus, was probably the result of ulceration, caused by one of the angles of the pieces of soap.—*British Medical Journal*, May 9, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, July 9, 1874.

From the report of the committee having in charge the hospital Sunday movement, we learn that the subscriptions have exceeded somewhat the sum of $13,000. Of this, about $2,000 went to institutions specially designated by the contributors, and the balance was distributed by the committee on a plan which had in view the amount of "board and treatment given gratuitously by the hospitals during their last financial year." The amount of the subscription is perhaps not so large as the enthusiastic supporters of this movement might have hoped for, nor is it possible that the friends of the various hospitals and dispensaries which have been recipients of this charity will be perfectly satisfied with the plan adopted by the committee in distributing the fund. It is hardly to be expected that a project of this kind, totally new to this country, could at the outset have achieved a brilliant success. Still, we cannot think that even the strongest opposers of this movement will deny that the committee has, on the whole, performed a difficult task discreetly, as impartially as it was in their power to do, and in a manner creditable to its members.

The true measure of success in such a movement is not, however, to be found by reckoning the number of dollars actually contributed to the various recipients of this charity, but should be sought for rather by observing to what extent these charities have been brought to the notice of those classes of the community who hitherto have hardly had an opportunity even, it might be said, to acknowledge the debt of gratitude which many of them owe to our hospitals and dispensaries, or to contribute, even in a small way, toward their support. It places the claim of these institutions in a strong light before the public, and gives them, to a certain extent, a hold upon the popular sympathy which could not so easily be acquired in any other way.

It is interesting, in this connection, to read the comments of the English press upon the second anniversary of hospital Sunday in London, which was held on June 14th. So far as we are able to learn from latest advices, the result of this year's work has fallen far short of the liberal sum collected at the time the experiment was first tried in that city last year. It will be remembered that great dissatisfaction was expressed at that time at the manner in which the distribution of the money was made. Moreover, the movement, so far as London is concerned, does not appear to have the united support of the profession. It may be that there are difficulties attending

the management of a movement like this in great cities which are well nigh insuperable; but we do not think that this fact will detract in any degree from the general popularity which it now enjoys in England. Whether a charity of this kind can be transplanted successfully on to American soil is a question which the experience of the present year can hardly be said to have definitely settled. All honest efforts, however, to impress upon the mass of the community the importance of a hearty and general support of all charities of this class are well worth undertaking and should merit sympathy and respect from the profession.

The University Court of the University of Edinburgh has just added (June 10, 1874) a department of public health to the departments in which degrees of science may be obtained in that famous seat of learning. This department has been created owing to the great demand which now exists in Great Britain for medical officers of health. It is of importance that there should be some way of ascertaining what members of the medical profession have specially studied those branches of medical science which particularly relate to public hygiene.

Candidates for graduation in science in the department of public health must be graduates either of a British University or of such foreign or colonial University as shall be recognized by the University Court of the University of Edinburgh. Candidates, before receiving their degree, must have passed two examinations with an interval of at least five months between each. The first examination will embrace subjects relating to chemistry, physics, sanitary law and vital statistics; the second will relate to medicine and practical sanitation.

After the lapse of one year, bachelors of science in the department of public health can take the degree of doctor in the same department, provided they have, in the meantime, been engaged in practical sanitation.

The University of Edinburgh is to be congratulated on taking such a decided step for the promotion of a more thorough knowledge, among members of the medical profession, of matters which relate to public hygiene. Practical sanitation has thus far been thought of too little importance, and the number of medical men is small who know anything of the duties of public health officers in relation to drainage, sewerage, outbreaks of epidemic, contagious and infectious diseases, while very few possess a thoroughly practical knowledge of general sanitary laws.

Recent numbers of the *British Medical Journal* contain "The Hastings Prize Essay on the Pathology and Treatment of Ovarian Diseases, by Lawson Tait, F.R.C.S.," of which the following is an abstract:—

The essay begins with an account of the anatomy and physiology of the

ovary. The author holds that the gland has so much resemblance to the testicle in anatomical structure, physiological purpose, and pathological change, that we are justified in going back to the ancient notion that it is the *testis mulicbris*. Even in their diseases, the testicle and ovary are closely analogous.

The most common diseases of the ovary are due to incomplete or perverted functions. As a rule, the gland is free from disease till after the age of puberty, when maturation of the ovum, and the possibility of its impregnation, occur. The chief external sign of this new function of the organism is the menstrual flow, but that this is no necessary part of the process is shown by the fact that some women have large families without ever having menstruated; that girls have become pregnant before the external signs of puberty have appeared, and that women sometimes become pregnant after the entire cessation of the monthly flow for years; so that the flow is an accompanying phenomenon, and not a cause or a result of the ovarian changes.

In healthy girls, the changes incident to puberty occur without suffering, usually at the fourteenth or fifteenth year; but in girls brought up in refinement, of delicate and strumous parentage, the moliminal change causes much trouble. As a rule, this seems to be due to the onset of menstruation, and the other signs of the change while the ovary is still in its infantile or incompletely developed condition; that is, it is forming incomplete cells, whose nuclei are incapable of fulfilling their functions, and the whole mechanism of ovulation is out of gear. In such cases, the menstrual flux comes on either at irregular times, or in insufficient quantity; or, if it comes regularly, it is over-abundant, and accompanied by severe ovarian pain. This arrest of development may be so complete that the ovaries may be said to be absent, though, in reality, the entire absence of the ovaries has been proved only in deformed fœtuses. Women in whom there is extreme arrest of ovarian development often partake in some degree of the characters of the opposite sex, especially in the growth of straggling tufts of hair on the upper lip and on the chin.

A greater number of cases have the arrest at a later stage, and in them menstruation is established, after much difficulty and suffering, between 16 and 19 years of age, and, though it may last with fair regularity, but deficient quantity, for four or five years, it then ceases completely. In many cases, however, if marriage occurs during the time that menstruation is in action, and if the patient becomes pregnant, a cure may result.

The majority of cases of this kind are afflicted to a less degree, and it is a singular fact that many of them are found in women of splendid physical development, who, to any but one well acquainted with such cases, look the most likely to possess a capacity for procreation. In these women, menstruation is established later than the normal time by a few months or a year or two. They have, at first, irregular times and much pain, but soon the flow is established normally, as to time and quantity, and with but little suffering. If they marry, their menstrual career may run an ordinary course, but, if they remain single, they in a few years suffer much from dysmenorrhœa, and undergo a premature climacteric change. Any chronic disease, overwork, mental anxiety or sudden fright will check their menstruation for months or years, or, perhaps, forever.

In these slighter cases of ovarian dysmenorrhœa, the uterus is generally normally developed, and it is often so in some of the severest cases.

The symptoms are sufficiently constant and distinctive.

The treatment in the milder cases is generally successful in mitigating the sufferings, and often the ovary may be made, even in well-marked cases of arrested development, to fulfil its functions completely. Iron stands at the head of all therapeutic remedies. In ovarian dysmenorrhœa, it is best given in intermenstrual periods in small doses, one to five drops of the liquor ferri perchloridi, well diluted, and increased suddenly to fifteen or twenty for a day or two previous and during the menstrual flow; or, better still, is the substitution of a large dose of an iron and aloes pill. Hot hip-baths, and leeches to the perinæum at the period are often useful additions, with an oc-

casional blister to the sacrum. Other means than these are only allowable in very obstinate cases, after the patient has been married, or when there are indications of premature ovarian atrophy. Marriage is, perhaps, the most efficient remedy. Mechanical irritation of the uterus is a most powerful aid, but it is not free from risk, and is of most advantage where the uterus is chiefly at fault. The author recommends for this purpose the insertion of Simpson's galvanic pessary.

The ovaries are liable to certain displacements, which may give rise to many disagreeable symptoms without any actual disease of the glands. They may drop into the retro-uterine *cul-de-sac*, and there cause much trouble. In such displacements, pressure on the gland gives rise to the same sickness and faintness as pressure on the testicle produces in the male, and the passage of a hard motion will sometimes cause the most alarming symptoms.

There is a large class of ovarian diseases, due to altered hæmic nutrition of the gland, which clinical experience shows to be far more common than pathological investigation has yet given evidence of. They may be divided into three groups, differing, probably, only in degree of severity, except where acute ovaritis has a specific origin. They are:—

1. Ovarian hyperæmia.
2. Chronic ovaritis.
3. Acute ovaritis.

Ovarian hyperæmia is the result of an over-sufficient and generally precocious ovarian activity, and is, therefore, the converse of the condition already described under ovarian amenorrhœa and dysmenorrhœa. It is far from being a rare affection, and its history is well marked, the chief detail of which is menorrhagia. There is hyperæmia not only of the ovary but of the whole sexual apparatus; the menstrual loss produces anæmia—the most serious result. Marriage, even without resulting pregnancies, seems to modify the menorrhagia.

The treatment of these cases should be begun in the first stage, if possible. There is no cause of deteriorated general health so certain for a young woman as profuse menstruation due to ovarian hyperæmia. Iron seems to have no control over the spanæmic condition, and all ferruginous preparations should be avoided until the menorrhagia has ceased. If the patient is at school, her education should be interrupted. Musical exercises are especially hurtful. Absolute rest is an essential, and the patient should be confined to the prone position for a few days before, during and after the catamenial flow. Counter-irritation over the ovarian region just before the period is useful; but the most potent part of the treatment consists in the administration of ergot before and during the period, and of bromide of potassium continually during the intermenstrual time. A favorite formula is half a grain of Bonjean's ergotin made into a pill with sufficient lupulin. The bromide is given night and morning, after meals, in doses of from five to ten grains. Much harm is done to many girls by their rigid social seclusion in youth from the companionship of boys. It may be a coincidence, but the author has noticed the affection under discussion chiefly in girls who have had no brothers. Ovarian hyperæmia sometimes results from marriage, but only when the marital acts have been indulged in to excess.

Chronic ovaritis may be a later stage of moliminal hyperæmia. It may also result from acute ovaritis, but in the majority of cases it occurs from sexual excess and masturbation, or as a sequela of exanthemata and rheumatic fever, and, probably, of syphilis. It is not an uncommon disease, often unilateral—invariably so, in the essayist's experience, as the result of acute septic ovaritis. When the result of sexual excess or moliminal hyperæmia, it is generally symmetrical.

The symptoms are, that from the molimen the periods have been irregular, generally too frequent and too profuse. If the affection has a subsequent origin, there is a history of a gonorrhœal affection, or a puerperal accident leading to an acute inflammatory attack, or an over-indulgence in sexual congress. There is always a sense of weight and fulness in the ilio-hypogas-

tric region. To these are added sickness and nausea, sick headache, tenderness on pressure over one or both ovaries, always increased about the time of the catamenial flow. Tactile examination shows the tenderness to be ovarian, and in very many cases the ovaries are found to be enlarged and tender.

The treatment should consist of organic and systemic rest during the menstrual periods and the administration of ergot. Between times, counter-irritation in the inguinal region is advantageous. This should be continued for months. Bromide of potash, arsenic and cod-liver oil are also of use.

Acute ovaritis is the result of three conditions only:—1. Injury. 2. Gonorrhœal infection. 3. Septic poisoning in the parturient condition.

It is quite often impossible to make a vaginal examination in acute ovaritis without anæsthesia, and this had better be used at once, for it is important to distinguish between acute ovaritis and pelvic cellulitis. The treatment consists in leeches to the perinæum, a blister over the ovary, diuretics and small, frequent doses of opium.

Hypertrophy of the ovaries occurs in two forms, as it affects the follicles of the gland or its fibrous tissue. Follicular hypertrophy probably forms a pathological feature of the ovarian hyperæmia already described. The fibrous hyperplasia seems to be especially frequent in the better ranks of life. It is probably very often the result of chronic ovaritis of a kind which attacks less the peritoneal surface of the gland and more its internal structure. It results in follicular atrophy, or arrest of development of the proper ovarian cells, and cirrhosis of the trabeculæ.

A small class of cases can only be classed under ovarian neuralgia. They are characterized by acute lancinating pain in the region of the ovaries, coming on paroxysmally, without reference to the ovarian functions. The patients have no signs of physical disease, but are approaching the menopause. They have all been addicted to over-indulgence in drink. In connection with this affection, the author strongly urges the medical profession to oppose the wrong women are often allowed to do themselves by taking spirits to relieve ovarian and menstrual pain. No habit can be more pernicious.

(To be continued.)

A Case of Camphor-poisoning.—Dr. Edward Pollak *(Wiener Medizinische Presse)* has been induced, by noticing the report of a case of camphor-poisoning in a late journal, to publish the details of a case of this rare form of poisoning which came under his own observation. On the night of the 9th of May, 1874, he was called to a patient, and upon his arrival found a woman lying upon her back in bed and tossing her hands and feet uneasily about. Her face was strikingly pale, the eyes bright and shining, there was a moderate tension of the entire muscular system, and in the lower extremities slight cramps. The skin was cool but dry, the pulse strong and full, and beating 88 in the minute. The temperature was 48.4°C. A strong smell of camphor was perceptible in the expired air, and also upon that which was expelled by eructation. The patient was in full possession of her faculties, had vomited some warm milk which had been given her, and spoke in a low tone of voice. She complained of violent ringing in her ears, giddiness, oppression of the chest, a sense of fulness in the stomach, and, from time to time, of her legs falling asleep.

When the cause of her being in this condition was inquired into, it was found that the patient had taken two tablespoonfuls of camphor mixed with brandy and water. A short time after swallowing the dose she became unconscious, and after a time vomited five or six times, and among the matters which were thrown off in this way were found numerous pieces of camphor, of the size of a pea or a grain of Indian corn. She had taken the camphor upon the advice of a female friend, with the object of avoiding any further

increase in her family, as she already had four children. Dr. Pollak treated the case with irritating enemata and wine and coffee, and ordered the application of cold compresses to the head, and in a short time the patient fell asleep. She broke into a profuse perspiration, and passed a considerable quantity of clear urine, which had a distinct odor of camphor. The perspiration had no odor except that usually noticed. The nausea and the subjective symptoms noted above speedily ceased; but for nearly three weeks the patient had more or less muscular weakness, giddiness and gastric disorder, all of which symptoms, however, speedily yielded to treatment. The camphor did not effect the object with which it had been taken, for in due time the patient, then in full health, became for the fifth time a mother.—*Philadelphia Medical Times.*

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

(Tuesday and Saturday, June 23 and 27, 1874.)

OPERATIONS were performed in the following cases :—Tumor of lower jaw, Vesical Calculus, Nævus of Arm, Fistula in Ano (13 cases), Stricture of Urethra, Necrosis, Dislocation at Shoulder-joint. During the week, Sub-Mammary Abscess, Ruptured Perineum, Enlarged Tonsils.

Tumor of Lower-jaw.—A painless growth, of seven months' duration, in a man, fifty-five years old. It surrounded and involved the bone at the angle of the jaw, and made a firm swelling at that point, half the size of a hen's egg. A T-shaped incision was made through the skin and fascia overlying the tumor, the jaw exposed and sawed on each side. This section, including the tumor, was then removed by clearing its attachments to the floor of the mouth. The vessels were secured in the course of the dissection as they were cut.

Vesical Calculus—in a boy thirteen years old, a native, and for a while resident, of Glasgow, Scotland. He had passed a small stone when two years old, and while living there. The only symptom had been occasional attacks of retention, lasting from twelve to twenty-four hours. Lithotomy by the lateral method. Stone flat and nearly round; of the mulberry variety; weight, 137 grains.

Nævus of Arm—congenital, in a baby eight months old. It was of the size and shape of an almond, and situated at the bend of the elbow. Excised, and wound closed by silk sutures.

Fistula in Ano—of three years' duration, in a man forty-six years old. The integument of the left buttock was riddled with fistulous openings, communicating with sinuses that extended upward by the side of and into the rectum. The patient was a teamster, and had been in the habit of riding on the hard, jolting seat of a cart. Sinuses laid open.

Stricture of Urethra (operation for extravasation of urine, reported in JOURNAL for June 25th).—Perineal section was performed, and the entrance to the bladder found by following the fistula through which the urine passed. Another stricture of the urethra in front of the section was dilated, and a large, silver catheter passed into the bladder and left.

Fistula in Ano—in a man. Laid open.

Necrosis—in a man thirty-two years old. Carious portions of the tibia removed by the spherical rasp.

Fistula in Ano—in a man. Laid open.

Dislocation at the Shoulder-joint—sub-coracoid and of five weeks' duration, in a man fifty-one years old; the elbow projected from the side of the chest at an angle of about 30°, and the head of the humerus could be felt just below the coracoid process. The adhesions at the shoulder were ruptur-

ed by rotating and circumducting the humerus. Horizontal traction was applied for a few seconds; at the moment it was discontinued, the elbow was brought down to the chest over the operator's forearm as a fulcrum, and the dislocation reduced.

Sub-mammary Abscess—following confinement five months since. Opened, and a large amount of pus evacuated.

Ruptured Perineum—in a woman 27 years old. It occurred during her first confinement, and involved the recto-vaginal septum, preventing her from retaining the contents of the bowels. The perineum was restored by dissecting off the membrane covering the border of the fissure and for a space of half an inch on each side of it; the raw surfaces were united by one deep and fifteen superficial wire sutures.

Enlarged Tonsils—in a child three years old, accompanied by unusually severe disturbance of respiration at night. H. H. A. BEACH.

Correspondence.

THE POSITION OF DELEGATES TO STATE MEDICAL SOCIETIES.

MESSRS. EDITORS,—At the meeting of the Massachusetts Medical Society, holden at Boston on the 3d instant, I listened a few minutes to an outside discussion upon the subject of sending delegates from one State medical society to another. There were three or four members thus engaged in the subject, all strangers to the writer; and the particular point on which the discussion seemed to hinge was this—when and where did the system of sending accredited delegates from one State society to another begin? It is a matter of but little interest to the profession at large when and by whom the thing originated, so long as it forms an interesting and profitable medium, half professional and half social, by which the friendly relations of one society with another may be made more harmonizing, and their professional interests promoted. Now, I feel it to be a very easy task to ascertain the true status of the case.

I would not have troubled you in relation to the matter, had the gentlemen who were so warmly discussing the question treated me with a degree of professional courtesy. It was evident, from their conversation, that they knew but little about the matter themselves, and they very abruptly doubted my knowing anything about it.

I propose to say something I *do know* in relation to the subject, and then, if I do not correctly state the facts, the records of some one or all of the State societies, when compared, will put the case right.

I simply stated to them, after being for some little time a silent listener, that I was very sure that the system was first introduced by an act of the "Rhode Island Medical Society"; they all made answer abruptly, "they knew better than that," and I left them to themselves.

Since that time, I have looked over some of my old papers, and I found an original preamble and resolution, now lying before me, which was prepared and presented by the writer, and unanimously adopted by a State medical society; and, as I was secretary *pro tem.* of that meeting, will give it as it was written upon the records of the meeting; but, as I have scarcely seen or examined those records since, I am unable to say whether or not there is any alteration or abridgment as they now stand in the records, but I give them as written originally, prefaced in the records as follows:—

"At the semi-annual meeting of the Rhode Island Medical Society, holden at Providence, Oct. 2, 1861, the following preamble and resolution were unanimously adopted:—

"Whereas, It is desirable to cultivate the most friendly relation among our State medical societies, particularly in New England, and recognizing the appointment of delegates from one society to another as an important means of promoting such relations, therefore

"*Resolved*, That Dr. Edwin M. Snow, of Providence, be, and he is hereby appointed a delegate from this Society to attend the annual meeting of the Vermont Medical Society, to be held at Montpelier, on the 23d instant, and that delegates be appointed to other State medical societies.

Signed D. HOMER BATCHELDER,
Sec. pro tem."

Now, what followed the passage of the above resolution? Why, there was at once a general response from nearly every New England State society to the sentiment embodied in the above preamble and resolution; and Dr. Edwin M. Snow, of Providence, was the first accredited representative from one State society to another, legitimately appointed, known to the writer.

It is to be recollected that the above action took place at the semi-annual meeting in October, 1861, and other delegates were elected to attend the annual meetings of all the New England State medical societies for the year 1862. Dr. Snow was, from unavoidable circumstances, unable to attend in person the annual meeting at Montpelier, Vt., in October, 1861, but sent his credentials in a letter, giving his reasons for non-attendance; but his letter and certificate were not presented until the semi-annual meeting was in session at St. Albans, June 18 and 19, 1862, at which meeting the Massachusetts Medical Society was also represented by Dr. Benj. E. Cotting.

A delegate—I think Dr. Sylvanus Clapp, of Pawtucket, R. I.—was the first elected to the Massachusetts Medical Society, and one, I think Dr. Usher Parsons, to the Connecticut Society, and the writer to the New Hampshire State Society at Concord. The meeting of the Massachusetts Medical Society was holden first of the series, and the delegate from Rhode Island attended, and was received with much favor, so much so that the Society responded at once by appointing a full corps of delegates to New England medical societies.

The meeting of the New Hampshire Medical Society was held on the 3d of June. I appeared there to represent the faculty of Rhode Island, and, to my astonishment, I met my old friend, Dr. Enos Hoyt, of Framingham, and Dr. C. A. Savory, of Lowell, who were to represent the faculty of Massachusetts, and we were all courteously received; while the Society reciprocated by the appointment of a full complement of delegates to the other State societies.

I was obliged to return to Providence the same night, in order to be at our own meeting on the 4th, at which meeting the first delegates from the Massachusetts Medical Society were present. They were Drs. Foster Hooper, D. H. Storer and Benjamin E. Cotting.

Thus commenced the system of professional interchange of civilities, which, it is to be hoped, will eventually lead to an established principle of united coöperation by all the State societies in behalf of "medical science."

The writer's opinion is, that in no instance, prior to 1861, has a "medical society" been represented in other similar bodies otherwise than by *special invitation* or *voluntary attendance.*

I have thus stated, rather in a hurried manner, from recollection only, when and where the first legitimate action was taken; and if, in doing so, I have erred in any one thing, I desire that it may be attributed to a faulty recollection rather than intention, hoping that some kind brother will volunteer to make the corrections.

With respect, I am yours fraternally, D. HOMER BATCHELDER.
Danversport, June 14, 1874.

THE OBSTETRIC BINDER.

PAWTUCKET, R. I., June 15.

MESSRS. EDITORS,—I noticed in your last number (June 11th), a communication from Dr. E. T. Williams, of Roxbury, in which he recommends a twisted sheet tied together at the ends, and used in the following manner as a convenient and ready means of expediting labor: "Put the feet into the loop at the lower end and push, grasp the other end with the hands and pull."

About a year ago, I was attending a French woman in labor with her first child.

The labor had continued for several hours, when an old French woman, standing by, asked me if she might put the patient into the "*swing.*" I did not know what she meant by a "swing," but gave my consent, curious to see what might be done. A rope, of sufficient length to pass below the patient's feet, was produced, the ends of which were tied to the bedposts above the head. A board to support the feet was placed in the loop below. Two napkins were placed upon either side of the rope, just below the hips, to protect the hands from the rough rope, and the patient, when "put into the swing," was directed to "push and pull."

I asked the old lady where she had learned to do this. She said it was the way the midwives did in the southern part of France.

Pleased with the seeming efficacy of this simple plan, I have resorted to it several times since, using, in place of the rope, a twisted sheet or a long towel in the same manner as Dr. Williams recommends.

I have often wondered why something about this has not been written in our works upon Obstetrics, as I have never seen anything about it in print, or heard it mentioned by any physician until I read the communication of Dr. Williams, to whom I cheerfully accord the credit of having first placed the use of this simple, but at the same time valuable, contrivance before the public. In several instances where it has seemed to me that the forceps would have to be resorted to, labor has been completed by the use of the *modified* "swing." In those cases where the expulsion of the placenta is tardy, I would advise the physician to try the above before resorting to either manual or instrumental interference.

Respectfully yours,

PHANUEL E. BISHOP, M.D.

BOSTON, June 16, 1874.

MESSRS. EDITORS,—Dr. Williams's "substitute for a binder" is, as he himself suggested, not a new thing. There is an apparatus, consisting of leather straps, made with padded handles and stirrups, which enables a woman to pull against herself most readily and comfortably. Some nurses have them to carry with them to any case of labor they may be called upon to attend.

H. T.

A CASE OF DISLOCATION OF THE SHOULDER.

HOOKSETT, N. H., June 22, 1874.

MESSRS. EDITORS,—I was called to see a woman, thirty-two years of age, of strong constitution, and in good health, for some trouble with her shoulder, and learned the following history in regard to it.

About fifteen years ago, her right shoulder was hurt, and kept her from work for two weeks. There were no signs of fracture or dislocation. Three months ago, by accident, she hurt the same shoulder, and experienced slight pain from it, but was not kept from ordinary house-work until about three weeks ago, when she began to lose freedom of motion, and felt numbness of hand and arm, slowly increasing, with slight pain and growing deformity of shoulder. There was no marked swelling during this time, nor when I first saw the patient.

Upon examination, I found a dislocation downwards, for which the history seemed to afford no direct or exciting cause. She could not tell any particular time when it happened, nor had she any idea how long her arm had been out of joint, or that it was out of joint at all.

I invited Dr. John Kimball, of Suncook, to see the case. He confirmed my diagnosis. We etherized the patient, and reduced the dislocation by manipulation; so easily, that the only proof of reduction was the absence of deformity. Proper bandages were applied, and, contrary to expectation, there resulted but little pain and no swelling. Five days after, upon removing the bandages, the use of the arm was fully restored.

ALVAH M. DAM, M.D.

Medical Miscellany.

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL discontinues its publication with the June number of the present year.

THE four members of the Massachusetts Medical Society who are reported to have offered resolutions, or to have been put on committees of the American Medical Association, were none of them present at the meeting.

SOOTHING APPLICATION IN HERPES ZOSTER.—

℞. Collodion, ℥j.;
Morphiæ muriatis, gr. viij. M.

To be painted over the vesicles without breaking them open.—*Medical Times.*

COCCULUS INDICUS.—The *London Pharmaceutical Journal* states that there are at present about twelve thousand pounds of this poisonous drug in the London market, and inasmuch as there is no legitimate use for the article, the inquiry is, for what purpose is it to be employed. It is intimated that the brewers might be able to throw some light on the subject.

FORMULA FOR HAY FEVER.—

℞. Potassæ chloratis, gr. xx.;
Morphiæ sulphatis, gr. iv.;
Aquæ destillatæ, ℥ij. M.

This mixture, to be used by means of the atomizer, is recommended by Dr. Hoover as giving immediate relief, and producing a complete cure within a few days.—*American Journal of the Medical Sciences.*

TOPICAL APPLICATION IN PAINFUL DENTITION.—

℞. Syrup of tamarinds, ℥ijss.;
Infusion of saffron, ℈ij.;
Honey, ℥ijss.;
Tinct. (essence) of vanilla, gtt. iv. M.

Rub gently over the gums with the finger or rag.

An application of a similar character is the following:—

℞. Saffron (powdered), 4 to 6 grs.;
Honey, 2 to 3 drachms. M.

Glycerine may be substituted for the honey.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending June* 27, 1874.

Boston, 135; Worcester, 11; Lowell, 15; Milford, 2; Chelsea, 4; Salem, 11; Lawrence, 9; Springfield, 12; Lynn, 7; Gloucester, 3; Fitchburg, 4; Newburyport, 8; Somerville, 11; Fall River, 18; Haverhill, 4; Holyoke, 2. Total, 256.

Prevalent Diseases.—Consumption, 40; pneumonia, 11; scarlatina, 10.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 4th, 143. Males, 73; females, 70. Accident, 5; apoplexy, 3; inflammation of the bowels, 4; disease of the bowels, 1; disease of the bladder, 1; bronchitis, 6; congestion of the brain, 3; disease of the brain, 5; cerebro-spinal meningitis, 1; cancer, 4; cholera infantum, 6; consumption, 21; convulsions, 8; debility, 5; diarrhœa, 5; drowned, 2; dysentery, 2; erysipelas, 1; typhoid fever, 5; gastritis, 3; disease of the heart, 5; malformation of the heart, 1; hæmorrhage, 1; intemperance, 2; disease of the kidneys, 6; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 14; marasmus, 4; measles, 1; old age, 3; paralysis, 2; pleurisy, 2; peritonitis, 2; puerperal disease, 1; sunstroke, 2; whooping cough, 3; unknown, 1.

Under 5 years of age, 54; between 5 and 20 years, 13; between 20 and 40 years, 32; between 40 and 60 years, 21; over 60 years, 23. Born in the United States, 77; Ireland, 45; other places, 21.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCI.] THURSDAY, JULY 16, 1874. [NO. 3.

Original Communications.

CONTRIBUTION TO THE PHYSIOLOGY OF THE CORTEX CEREBRI.

By JAMES J. PUTNAM, M.D.

Lecturer at the Harvard Medical School on the Application of Electricity in Nervous Diseases.

ALL those of the profession who interest themselves in physiological matters are already familiar with the experiments made first, some years ago, by Fritsch and Hitzig, of Berlin, and latterly repeated with greater elaboration by them, and by Ferrier, of London, which seem to prove that the cortex cerebri is not, as has been long believed, or at least not over its whole extent, incapable of responding to other stimuli besides those to whose influence it is regularly subjected.

On the contrary, it appears that when a weak current of electricity is applied to certain pretty sharply defined points which lie mainly in the convolutions bordering on and anterior to the fissures of Sylvius and Rolando, certain groups of muscles *on the opposite side, and sometimes on both sides* of the body, are thrown into contraction. The important bearing of these observations upon cerebral physiology and pathology has not failed to gain for them the close attention of neuropathologists everywhere, and especially of Dr. Hughlings Jackson, of London, who sees in them the verification of some clinical theories of his own. The observations themselves have received corroboration from all sides, but recently an important criticism has been made on them by Dr. Eugene Dupuy,* and by MM. Carville and Duret,† and, indeed, by Hitzig himself, in speaking of the experiments of Ferrier,‡ viz., that it is impossible, in using induction currents [Hitzig employs galvanic currents], to confine the irritation to limited districts of the cortex cerebri, and that the muscular contractions which attend, at least, Ferrier's method of irritation are due partly [Hitzig] or entirely [Dupuy] to the irritation of nervous masses which lie buried deeper.

The experiments here recorded were undertaken for the purpose of testing that point, but it may be well, before describing them, to examine a little the adverse testimony just referred to. The criticism of Hitzig was called out by the fact that Ferrier's centres, though in the main corresponding with his, occupied a larger area, and that their position, as observed in cats, differed from that in dogs more than the

* Examen de quelques points de la physiologie du cerveau. Paris. 1873.

† Gazette Médicale de Paris, Jan. 10, 1874. Vide also review of both in the Archives of Neurology and Electrology, Vol. I., No. 1, May, 1874.

‡ Berliner Klinische Wochenschrift, Feb. 9, 1874.

other differences between these animals would have led him to believe. Into the examination of these ground points we do not undertake to enter.

On the part of Carville and Duret, the criticism referred to was founded mainly upon the results of some experiments in which platinum needles, connected with a sensitive galvanometer, were introduced to different depths into the brains of animals, while the cortex was faradized in the usual manner; and they claim that the galvanometer needle was deviated, even when the distance between the platinum needles and the electrodes which furnished the current amounted to several inches. From these and other facts, to be referred to later, they drew, among others, these conclusions:—

1. That the cortical substance of the hemispheres is not excitable; it is insensible, and does not contain special motor centres.

2. That the effects produced by faradic currents are the effects produced by direct excitation of the corpora striata and crura cerebri, as the currents penetrate to these organs.

Also, that faradic currents, however feeble, are diffused over the surface of the brain, from one point to another.

Although the distinction is not made in their report, it is most probable that Carville and Duret used the primary, and not the secondary induction currents, contrary to Ferrier's habit, otherwise they would not have been able to detect their presence by the galvanometer, for the needle of this instrument is not deflected by the currents of short duration, and whose direction is constantly changing, such as are obtained from the secondary induction coil. This is in so far of importance that the secondary currents, owing to their greater tension [power of overcoming resistance], make their way less weakened by diffusion directly through the tissue separating the wire electrodes, for, although in traversing any conductor electricity diffuses itself to some extent over the whole mass, yet the degree to which it does so is inversely proportioned to its power of forcing a direct passage between the points of entrance and exit, and this power, thanks to the greater number of turns of wire of which the secondary coil is made up, belongs to the secondary induction current in greater degree than to the primary [extra] current.

Dupuy was led to much the same conclusions as those stated, finding, as did also Carville and Duret,* that "it is possible to excite, by the irritation of any point whatever of the cortex cerebri, contractions affecting, sometimes, a whole limb, which is generally the fore leg, and on the opposite side of the body;" also "that (while the irritation was being made as usual) a galvanoscopic frog-preparation was thrown into contraction when its nerve touched the cortex cerebri at a point far removed from that irritated," and, further,† that nerves at the base of the brain, which have been previously cut through to prevent the transmission from above of *nervous* excitation, can be excited electrically when applications are made to the surface of the brain in the usual manner, showing to how great an extent diffusion of electrical currents may take place.

That these results were obtained as stated we have no difficulty in believing, but we do not admit that they justify the conclusions drawn.

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* As well as for other reasons, not discussed here because not bearing on the point under consideration.

† So stated at a recent meeting of the New York Society of Neurology and Electrology. Vide New York Medical Journal, July, 1874.

The real question plainly at stake is not, "can we produce effects due to irritation of distant parts while irritating definite points of the cortex cerebri," a question to which a simple consideration of the laws of electro-physics would permit an affirmative answer to be given, but, rather, "can we irritate the cortex cerebri to the extent necessary to produce the results claimed, *without* at the same time irritating deeper seated structures enough to call out their functional activity," and this possibility is not refuted by the experiments of Dupuy, or Carville and Duret, but receives affirmative support from our experiments, although few in number. These consisted in finding, which was always possible, the centres for definite, and nearly or quite uncomplicated, movements, and the minimal current-strength that was necessary to produce these movements, after which, with a sharp knife, we made a cut underneath these centres, leaving a good-sized but thin [by estimation 1 to 2 mm. thick] flap, which contained the suppositious centre. Having done this, we found that if we irritated as before, leaving the flap *in situ*, the movements before observed did not occur.

We then turned the flap up and irritated below it. The same current strength generally failed here, also, to produce the contractions, but they always appeared when the strength was slightly increased; not so, however, when the flap was turned back and adjusted to the electrodes applied on its surface as at first, repeated trials being attended with the same results. The irritations were made with the current from the secondary coil of a Du Bois-Reymond induction apparatus, run by a simple Léclanché cell, and the minimal current, which was found efficient, was strong enough to be felt distinctly by the tongue, scarcely, if at all, by the finger,* i. e. of about the strength that Ferrier also found usually sufficient.

The animals experimented upon, three in number, were dogs. The method was that usually followed, and no accidents occurred which materially interfered with the investigations. The movements obtained were, in the first experiment, extension of the opposite fore-leg; in the second, extension of opposite fore-paw, flexion of fore-leg at elbow, extension of leg at shoulder, partial extension of paw, these different phases following each other slowly, and the full result only occurring when the irritation had lasted a certain time; in the third, extension of both fore-paws, especially that of the opposite side, and occasional slight movements of hind legs; in the fourth, well-marked closure of the opposite eye, without any other movements, with the exception of occasional struggling.

Subsequent examination showed that the centres which we found agreed quite well with the corresponding ones found by Ferrier, though sometimes more closely, apparently, with those given by Hitzig.

One experiment, given somewhat in detail, will serve as a type of all:

June 6.—A middle-sized, healthy dog was etherized, a good portion of the skull laid bare from the median line down to the zygomatic arch on the right side, and a small piece of bone trephined out from the middle of this surface. The opening so made was enlarged with bone-forceps to the diameter of 1·5 cm., the dura mater removed, and the exposed portion of brain sketched. Muscular bleeding was checked by perchloride of iron; that from the membranes, which was considerable, by pressure made with sponges.

* In no case was it necessary to make the secondary coil overlap the primary, or even come within an inch of doing so.

Centres were sought for in vain over this surface, with irritations varying in strength from D = 15·3 cm. to D = 12·9 cm.* Only once all the muscles of the body were thrown into spasmodic contraction, which lasted after the cessation of the irritation, passing over into general struggling, which made more ether necessary.

The hole was then enlarged to about 3 cm. in diameter, and the search continued, but, at first, without success. This was probably because the unusually great tendency on the part of the animal to struggle violently, though it was probably not suffering much pain, obliged us to renew the etherization several times, whereas, as is known, it is only during incomplete etherization that the centres, or most of them, are irritable. At the 13th point of application, with the weak irritation D = 14·8 cm., we obtained *firm closure of left eye*, the animal being pretty well under ether, and quiet.

Cm.	Result.
With D = 16	Same as before, but less well marked.
D = 15·3	Ditto, better marked than last time.

(From this point on, the animal remained, at least at the moment of experimentation, very quiet. The ether was discontinued just enough to allow the eyes to be open, or partially so, at the proper moments.)

As superficial a section as possible was then made (not more than 1 mm. thick), but the flap left *in situ*.

		Result.
Application made on top of flap,	D = 14·8	0
Application made on exposed surface after reflection of flap,	D = 14·8	0
Application made on exposed surface after reflection of flap,	D = 12·8	Left eye firmly closed.
Application made on top of flap after replacement,	D = 12·9	0
Application made below flap again,	D = 12·9	Closure of eye as at first.
" " on top of flap,	D = 12·9	0
" " below flap,	D = 12·9	Closure of eye as before.
" " on top of flap,	D = 12·9	Possibly closure of eye to slight degree.
" " below flap,	D = 12·9	Closure of eye as at first, though not so strongly marked.
" " on top of flap,	D = 12·9	0

No other movements occurred at the moments of experimentation that could be regarded as due to the irritation of the brain, or that materially complicated the results stated.

These experiments were made at the physiological laboratory of the Harvard Medical College, with the kind assistance of Prof. H. P. Bowditch and Dr. Wm. James. Since they were made, the gratifying statement has come to our notice that essentially the same method has been employed by another observer, with the same results. (Braun, in *Eckhard's Beiträge zur Anatomie und Physiologie*, vii. 2; also *Centralblatt*, Berlin, June 13, 1874.

THREE CASES OF SPINA BIFIDA.†

By M. F. Gavin, F.R.C.S.

Surgeon to St. Elizabeth's Hospital.

Congenital fissure of the spine *(spina bifida)* is sufficiently rare to warrant me in bringing three cases of it under your notice, in two of which nothing was done, while the treatment used in the third case may have accelerated death. Late French and English writers on the

* D represents the distance between the similar ends of the two coils. D = 0 would indicate that the secondary coil was slipped entirely over the primary. When D = 7·5, the anterior end of the secondary coil was just level with the posterior end of the primary.

† Read before the South Boston Medical Club.

subject speak of this malformation as being very common, about as much so as hare-lip.

That this malformation is rare in this country, most will acknowledge, a fact fully corroborated by the published hospital reports of our city. The disease consists in an arrest of development of the laminæ of one or more vertebræ, generally occurring in the lumbar or dorsal regions, rarely in the cervical; and attended with a hyper-secretion of cerebro-spinal fluid. The increase of cerebro-spinal fluid is not alone interesting in a surgical point, but also in a physiological one. Magendie, in his experiments upon dogs, showed that the pressure of the cerebro-spinal fluid was necessary to a healthy action of the nervous centres. No doubt this fluid gives support to the delicate bloodvessels of the pia mater, as well as protection to the spinal marrow. By some writers, this increased secretion of the spinal fluid is looked upon as the cause of the malformation, the want of ossification or coming together of the spinal arches being entirely due to the presence of a fluid tumor. If such was the cause, I doubt if we would ever have the malformation extend so high as the cervical region.

Case I.—James D——, a strong, healthy fellow, aged about 17 years, born in Boston of healthy parents. At birth, tumor large as an English walnut over lower lumbar vertebræ and in the centre of back. Very soon after birth, it began to increase in size, especially so when the child cried. When six months old, was treated at Massachusetts General Hospital by having a ligature passed round the base of the tumor, showing that the tumor at that time was pedunculated, but after a few hours the ligature broke and was not reäpplied, as the mother was averse to having so painful a method of treatment used; in fact, she declined further treatment. Till the child reached the age of eighteen months, the tumor continued to increase in size. When fourteen months old, the child walked, showing no signs of weakness, or paralysis of lower extremities.

Present condition—a tumor, about as large as a small cocoanut, soft and doughy to the touch, lobulated, broad base, over the lower lumbar vertebræ; pressure does not change its size, but causes intense pain extending to head, and a tendency to vomit. With exception of violent headache, which is generally caused by receiving a blow over tumor, health always exceedingly good. Height 5 feet, 6 inches; weight about 150 pounds.

Case II.—Laura M——, aged about 4 years, born in Boston, of healthy parents. At birth, a tumor, about the size and shape of a small orange, was discovered in the lumbo-sacral region, and in the middle line of the body. This tumor began to grow in size very soon after birth, and has continued to do so since till at present, when it measures 15 inches in circumference; round, with a broad base, fluctuates, *semi*-transparent. When child cries or coughs there is a visible increase in size of the tumor, and partial paralysis of lower extremities. Since two years, health of child has been good, but previous to that time was "delicate." At present, child is as bright and intelligent as most children at her age. Since a year, the tumor increased two inches in circumference.

Case III.—Daniel S——, a strong, healthy-looking child, of healthy parents, aged about six months. At birth, a small, purse-like swelling over spine, midway in the cervical region, and in the middle line of

the body. Soon after birth, swelling began to grow large, and has steadily increased in size till at present, when it hangs from the spine as a good-sized baseball. On pressure, fluid is readily detected; when placed in a strong light, it becomes translucent; over the centre, is a cicatrix, discolored, and running in the long axis of the tumor; pressure causes the child to cry bitterly. The fontanelles were closed; but of that I made no note. The child is well nourished, and large for its age; two lower incisors are through; perhaps, less bright than children of this age; never has held up its head, nor does he now make any effort to do so. The spinous processes of the vertebræ under the tumor were not felt. The parents were anxious to have something done, feeling that the child could not live long in his present condition. In Gross's Surgery, there is a picture of spina bifida, in every respect like the one just described. After explaining to the parents the unpromising nature of the tumor, the great risk involved in any sort of treatment, and feeling that unless something was done the skin over the tumor would soon give way and convulsions follow, I decided on first trying the effect of pressure by clamp, made for the purpose; in fact any other sort of pressure was out of the question, as it could not be kept in position.

Aug. 30th.—Tumor tapped with Dieulafoy's aspirator, care being taken to insert the instrument in the side of tumor. Eight ounces of clear, watery-looking fluid withdrawn, leaving nothing but a pendulous mass, through which the deficiency of spinous processes could be felt. The clamp was now used, but had to be removed after a few hours, owing to the suffering caused by its use. No ill effects followed; the child slept well, and nursed as usual. The tumor was not long in refilling, and about the middle of September the aspirator was again used, when seven ounces of the same kind of fluid was withdrawn.

Oct. 4th.—Tumor nine inches in circumference. Aspirator used; six ounces withdrawn, and pressure used with a new clamp, but failed to do any good, when pressure with a thick compress and roller bandage was tried. For a few days, child continued restless and feverish.

Oct. 15th.—Aspirator used; nine ounces withdrawn. In nine days, tumor as large as ever, when parents declined to have further treatment used.

Five months later, I saw the child again, when tumor measured twelve inches in circumference, and the skin covering the lower part was ulcerated. Aspirator used; ten ounces withdrawn, and pressure applied. I did not see the child afterward, but learned of his death, which occurred two days after the aspirator was last used. The parents declined to have a *post-mortem* examination, or even allow me to see the child. I am indebted to Prof. James C. White for analysing the contents of the tumor. "The fluid was identical with the serous transudation occurring in the cerebro-spinal cavities—transparent, colorless, alkaline. Specific gravity 1.003. No sediment." Every time the aspirator was used the fluid withdrawn was tested for sugar, but none was found. In a little more than a month, thirty ounces, or about two pounds of cerebro-spinal fluid was withdrawn without producing any apparent effect. In Sir Astley Cooper's case, that of a little child, aged ten weeks, 23½ ounces of cerebro-spinal fluid was withdrawn in one month and five days. I was anxious to find the presence of sugar in the fluid, as it has been spoken of by French writers, and used as a

help in differential diagnosis; but the most careful examination, both by the yeast and Trommer's test, failed to find any. As in all other diseases, it is important to make a correct diagnosis, for we find* mistakes have been made. The diseases likely to be mistaken for spina bifida are the so-called false spina bifida, where the contents of the tumor does not communicate with the arachnoid cavity, congenital, fatty or cystic tumors and congenital sacral tumors, all of which have been mistaken for true spina bifida. The diagnosis of true and false spina bifida, when the latter is cystic, must at all times be difficult in the absence of some of the fluid contents of the tumor. Congenital, fatty tumors, like all fatty tumors, are lobulated, and the skin can be pushed up and moved over the tumor. Most surgical writers lay great stress on the want of the spinous processes as a means of diagnosis. In exceptional cases, we may be able to detect the cleft in the spine; but, ordinarily, it is not possible to reach the spinous processes, allowing they were present, through a large fluid tumor. Where false spina bifida is of a cystic nature, and communicates with the spinal canal, I know of no other means of diagnosis than a chemical examination of the fluid. In a case of this nature, practically speaking, accurate diagnosis is of little moment, as the treatment is the same in both cases. In the first case mentioned, there can be little doubt about the diagnosis. The mother was told at the General Hospital that the child would be likely to have convulsions, while the treatment used is a proof; in no other disease was it likely to have a ligature used. At the present time, tumor might be classed with false spina bifida; that is, there is no communication between the sac and spinal membranes. The second case offered better chance of treatment than the third case, inasmuch as compression could be applied after the aspirator had been used. I recommended to have the tumor evacuated and compression applied for the following reasons: the steady increase of size of the tumor, with a thinning of the skin, and the partial paralysis growing worse. The parents were unwilling to have anything done that involved a risk of life.

In the third case, there could be no question of diagnosis. Treatment in the first case, a padded truss to protect the tumor from injury. Second case, treatment declined. The treatment used in the third case was that which involved the smallest risk to life, and with Dieulafoy's aspirator the risk was small compared with a common trocar. I believe this is the first case of spina bifida where the aspirator has been used. Reasons for operating: first, the tumor was growing large, causing great inconvenience to the little sufferer, and if allowed to go on the skin must burst, convulsions and death would likely follow; second, the transparency of the tumor showed the contents of the sac to be fluid, and not the spinal cord or nerves, a condition favorable for treatment. Cooper, Erichsen and others recommend this form of operation, before resorting to more severe measures.

SMALLPOX IN ENGLAND.—It is stated that smallpox, in its most virulent and fatal form, has been prevailing for some months in Birmingham, the great central town of England, no fewer than 289 deaths having been already recorded.

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* Mr. Pollock records a case where a fatty tumor was mistaken for true spina bifida.

Progress in Medicine.

REPORT ON PHYSIOLOGY.

By H. P. Bowditch, M.D.

Effect of Apnœa on Convulsions.

Filehne (*Reichert and Du Bois Reymond's Archiv*, 1873, p. 361) reports experiments made under Munk's directions to determine the effect of forced artificial respiration on the normal respiratory movements and on the convulsions produced by strychnia. The author confirms the conclusions of Rosenthal, and rejects those of Brown-Séquard (*Archives de Physiologie*, iv. p. 204). For a better comprehension of the subject, a brief account of the experiments and conclusions of the latter observer may be given. Having found that in guinea pigs, rendered artificially epileptic, the attacks could be cut short by directing a stream of carbonic acid forcibly against the mucous membrane of the pharynx, Brown-Séquard was led to suppose that the arrest of the movements of respiration (apnœa) and of strychnia convulsions, which is effected by forced artificial respiration, is due, not to a superoxygenation of the blood, as Rosenthal supposed, but to an inhibitory action of the vagus, and perhaps other nerves, on the nervous centres of the medulla and cord. Three series of experiments lent force to this hypothesis. In the first place, it was found, that after section of the cervical cord or the vagus nerves, forced artificial respiration produced neither apnœa nor arrest of strychnia convulsions. Secondly, injection of carbonic acid from below upwards through the larynx (the animal breathing through a tracheal canula) caused immediate arrest of respiration. Thirdly, injection of carbonic acid into the lungs caused immediate cessation of the convulsions due to loss of blood.

These experiments of Brown-Séquard, Filehne repeats and criticizes. He finds, in the first place, that neither the section of the cervical cord nor that of the vagus nerves prevents the production of apnœa by artificial respiration. It does not occur so readily as under normal conditions, owing, as Filehne supposes, to disturbances of the circulation, caused by these nervous lesions. He finds, too, that strychnia convulsions are stopped by artificial respiration, as described by Rosenthal, and that the fatal effects of the poison can thus be warded off. In this respect, his observations are at variance with those of Rossbach (*Centralblatt für die medicinischen Wissenschaften*, 1873, p. 369), who denies that artificial respiration has any effect upon the intensity or the duration of the strychnia convulsions. This discrepancy Filehne explains by supposing that Rossbach did not use animals sufficiently alike in all respects for making comparative experiments.

In regard to the effect of section of the vagi on this saving influence of forced respiration in strychnia poisoning, Filehne finds that a dose of strychnia, the effects of which can be warded off by forced respiration, becomes fatal on section of the vagi, but he also finds that an animal poisoned with strychnia and with vagi cut may be saved from death by forced respiration, while an animal similarly treated, but left to breathe naturally, dies in violent tetanus. He therefore concludes that the effect of section of the vagi in rendering fatal a non-fatal dose

of strychnia is due to a disturbance of the circulation which prevents the thorough oxygenation of the blood in spite of the vigorous artificial respiration. The fact that the first appearance of tetanus in an animal thus treated coincides with a sensible diminution in the force of the heart's contractions, is an argument in favor of this view.

Filehne has also studied the effect of a stream of carbonic acid on the nasal and pharyngeal mucous membrane, and finds that when the stream is so directed that the gas comes in contact with the mucous membrane of the nostrils an arrest of the respiratory movements at once takes place, whereas no such effect is produced when the irritation is applied to the trachea, larynx or fauces. This is a reflex, inhibitory phenomenon, the nature of which has been carefully studied by Kratschmer (*Wiener Sitzungs berichte*, Band 62, abth. ii. June 17, 1870), who has recognized the trigeminal nerve as the channel through which the inhibitory influence is conveyed. Filehne and Brown-Séquard agree, therefore, in regarding the arrest of respiration by a stream of carbonic acid directed into the air passages as an inhibitory phenomenon, though the latter observer does not, like the former, limit the surface, the irritation of which produces this effect, to the nasal mucous membrane.

Brown-Séquard's error is, according to Filehne, in confounding the stoppage of respiration thus produced with true apnœa, which depends upon superoxygenation of the blood. Filehne finally makes experiments to determine whether the irritation by carbonic acid can produce not only stoppage of respiration, but also, as Brown-Séquard maintains, arrest of strychnia convulsions, and of artificially produced epilepsy.

By the most carefully conducted experiments, he fails to convince himself that the stream of carbonic acid has any effect in shortening the convulsions either of strychnia or epilepsy. How such discordant results are to be reconciled is not easy to see, but Filehne suggests that, owing to the short and irregular duration ($\frac{1}{4}'$–$1'$) of the artificial epileptic attacks, one can readily deceive one's self as to the effect of applications made to arrest them.

In this connection must also be mentioned the experiments of Ananoff (*Centralblatt für die medicinischen Wissenschaften*, 6 June, 1874) on the effect of oxygen on increased reflex irritability.

This observer gave a fatal dose of strychnia to two rabbits, and allowed one of them to breathe oxygen, while the other breathed atmospheric air. The latter died in convulsions seven minutes after the administration of the poison, while the former had no convulsions whatever as long as the respiration of oxygen was kept up (twenty-eight minutes), and finally died with only slight spasms ten minutes after the oxygen had been removed. Inasmuch as the oxygen was conducted from the gasometer to the lungs of the animal under a certain pressure, it was necessary to determine whether atmospheric air, breathed under the same pressure, would not produce the same effect. For this purpose, two rabbits were poisoned with strychnia, as before, and one of them made to breathe air coming from the gasometer under pressure, while the other breathed under natural conditions. In the former, tetanic spasms were produced by external irritation seven minutes, and death followed twenty minutes after the administration of the poison, while the latter died at the end of six minutes.

A third experiment was made to determine the difference between

the effect of oxygen and that of an increased amount of atmospheric air. Of two rabbits, both poisoned with strychnia, it was found that the one which breathed oxygen remained free from spasms as long as the oxygen inhalation was kept up, while the one which breathed atmospheric air under pressure had convulsions in seven, and died in twenty, minutes. From this, it seems evident that it is really the presence of oxygen in the blood which prevents the occurrence of strychnia convulsions, and from Rosenthal's experiments it is clear that the amount of oxygen necessary to produce this effect can be forced into the blood by artificial respiration without having recourse to the inhalation of pure oxygen, though in the experiments of Ananoff the effect of breathing condensed air was only to retard and not to prevent the convulsive action of the poison.

Muscles.

Ranvier (*Archives de Physiologie*, vi. p. 5) calls attention to the difference in appearance and physiological properties presented by the striped muscles of the same animal. He finds, for instance, that in the leg of the rabbit the semi-tendinosus, the adductor brevis, the quadratus femoris and the soleus have a redder color than the rectus, the vasti, the adductor magnus, the biceps, the gemelli, &c., which, in contrast to the others, are denominated "pale muscles." This difference in color is independent of the amount of blood which the muscles contain, for it persists after the vessels of the limb have been washed out with artificial serum. Corresponding to this difference in appearance is a difference in the nature of the contraction. The red muscle contracts much less promptly than the pale muscle under the influence of an electrical stimulus, and relaxes much more slowly when the stimulus is removed. The period of latent irritation and the duration of the single muscular impulse or shock* is from four to six times greater in the red than in the pale muscles, while the rapidity of stimulation which is sufficient to produce complete tetanus is correspondingly less. These differences are equally manifest, whether the irritation is applied to the nerve or directly to the muscle.

Histological differences are also noticed in the two sorts of muscles. In the pale muscles, the transverse striation is much more distinct than the longitudinal, while in the red muscles the longitudinal striation is very well marked, and the transverse striæ are not straight, as in the pale muscles, but formed of broken lines. Nuclei are much more abundant in the red than in the pale fibres. Muscles presenting these same differences are also found in various species of fish.

Ranvier has also recently reported to the Société de Biologie (*Révue Scientifique*, 6 June, 1874) a very ingenious method of studying the transverse striæ of muscles. The method consists in using a histological preparation of a striped muscle for the production of a diffraction spectrum, the striæ of the muscle producing the same effect upon the light as the fine lines ruled on glass, which are usually employed for this purpose. The spectrum thus produced is found to undergo no change when the muscle contracts, proving that the transverse striæ of muscles do not disappear in contraction, as has been sometimes maintained.

[To be concluded.]

* It would, perhaps, be well to adopt the word "jerk," as the equivalent of the French "secousse" or the German "zuckung," to express the contraction of a muscle in consequence of a single instantaneous irritation.

Bibliographical Notices.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D. Fifth American from the Sixth Revised and Enlarged English Edition. Philadelphia: Henry C. Lea. 1874.

ANYTHING from the pen of Dr. West is sure to meet with a hearty welcome from all those interested in the study of children's diseases. The author, wisely, we think, preserves the old form of his work, for there is a great charm in the conversational and friendly way in which he presents the different subjects under the form of lectures. The universal respect with which all his teachings are received needs no better illustration than the fact that his book has passed through five editions in this country, through four in German, and that, while it has also been translated into Italian, Danish, Dutch and Russian, a French translation is now in press.

We naturally turn first to see what changes time may have made in the author's ideas of treatment, which have not always seemed to keep pace with those of the more rational and modern school.

That his treatment, more especially of acute diseases, has changed, we find ample evidence in his later writings, though we will probably not agree with him as to the causes to which he attributes this change.

In speaking of depletion, p. 29, he says:—

"Changes in medical opinion, such as have taken place within the past twenty years, influence one's conduct by slow and almost imperceptible degrees, and I find that my practice now differs much from what it was a quarter of a century ago; that I deplete less than I did, that I have less faith in mercury, that I employ antimony more rarely, that I have more confidence in nature's powers, less reliance on my own resources. And yet I am unwilling to believe that all my former observations were erroneous, and that my old faith was entirely misplaced; but, unhappily, I have no longer the leisure to test the value of these changes as I could wish; while the peculiarities of consultation practice in a large city, though they may sharpen one's perception and increase one's promptness in action, are anything but favorable to scientific investigation, or to accurate reasoning."

Again, in his lecture on the treatment of bronchitis, we find, p. 277: "in reconsidering the rules which I shall lay down for your guidance, I am struck by the different conclusions to which more than thirty years of the practice of my profession have led me from those which I adopted at the onset of my career. It is, I believe, but rarely, at the present day, that depletion is indicated in bronchitis or pneumonia; and tartar emetic needs to be given more sparingly than in former years, and with less certainty in cutting short at its very onset the inflammatory action. And yet, when looking back on the records of cases where I abstracted blood freely, and gave antimony in large doses, I cannot admit that my practice then was a mistaken one, that the recoveries which then took place were the result of accident, or that, in counseling now a different course, I am merely following the fashion or the prejudice of the age." . . . . . "You will now understand, gentlemen, why it was, when I told you at the beginning of this lecture, that the necessity, nay, even the utility of depletion in pneumonia did not seem to me well established, that I made a point of adding *just at present.* I did so, because it so happens that now for the past several years we are in the midst of an epidemic constitution, in which diseases do not require this remedy, though, formerly, they did require it and though in the course of time they will, no doubt, stand in need of it again."

The chapter upon "Active Congestion of the Brain" has been largely rewritten and altered. In former editions, the author has been used to class the symptoms of violent cerebral disturbance, which sometimes usher in the eruptive fevers and, even prove fatal before the rash has had time to show itself, among those most strikingly illustrating active cerebral congestion,

whereas now this opinion has been given up in common with other of the best authorities and these symptoms regarded as partly dependent on the high temperature of the blood. The symptoms of sunstroke are now classed under the same category. The treatment has likewise undergone a change, with regard to which he now says: "While, therefore, I would not say that depletion ought never to be practised, and while, if hydropathy failed, I should still have recourse to it, I no longer employ, nor should I advise, that free depletion, to which, in ignorance of these other means, I was accustomed to have recourse."

We find in this edition the old name of "acute hydrocephalus" discarded, tubercular meningitis being substituted for it. The subject of the ophthalmoscope as an aid to diagnosis of diseases of the brain receives attention in this lecture. It is regarded as adding but little to the knowledge which we derive from other sources in the acute disorders of the brain; but further on, when speaking of the diagnosis of tubercle of the brain he says: "I need not remind you of the value of the ophthalmoscope in doubtful cases, a value which additional experience in its use will probably tend to increase. The appearances which it discovers are such, indeed, as one might beforehand expect to find, namely, a state of congestion of the optic disk, which is swollen, its outline indistinct, its surface often dotted with tiny ecchymoses, the arteries pale, and diminished in size, whilst numerous veins which were before invisible may now be seen enlarged, full, tortuous or even varicose. This appearance is seldom wanting in cerebral tumors of any size, and is almost invariably present in tumors of the cerebellum, which is, as you will recollect, the favorite seat of the tubercular deposit. In doubtful cases, I always avail myself of the special knowledge of some colleague, expert in the use of the instrument. I advise you to learn to use it for yourselves."

We would naturally not look for anything new in the treatment of so fatal a disease as tubercular meningitis, but in this chapter are mentioned three remedies, which appear in this edition for the first time, viz., tincture of aconite, "from which in cases of general febrile disturbance, accompanied with excitement of the brain, he has seen much good result," hydrate of chloral, and bromide of potassium. Other changes and additions since the edition previous to the present one are not very numerous. The lectures upon abdominal tumors and upon diseases of the kidney are entirely re-written and very much enlarged, as is also the subject of paracentesis thoracis. Among the diseases of the respiratory organs, the subject of infantile asphyxia receives attention in this edition.

The statistics of cases from his own practice have become much larger. The prescriptions scattered through the book have been made up with care and skill for rendering them palatable, a certainly no trivial accomplishment.

The book is printed in the well-known form of American medical works, with the ugly white cover. The type is excellent, and there are remarkably few typographical errors.

Ligation of Arteries. By Dr. L. H. Farabeuf. Translated by John D. Jackson, M.D., of Danville, Kentucky. Philadelphia: J. B. Lippincott & Co. 1874.

The want of a good manual on operative surgery, adapted for dissecting-room use, has long been felt, not only by those whose duty it is to give instruction in this department of surgery, but also by the students who look in vain in ordinary text-books for the careful and minute directions which they have listened to in the lecture-room. It is to meet, in part at least, such a want as this that Dr. Jackson has translated Farabeuf's "Ligation of Arteries." The translator has made a good selection for this purpose, for the author's position, as one of the rising surgeons, and the most prominent teacher of this branch in Paris, gives a tinge of authority and originality to such a book, which could not otherwise easily be infused into it. The first part of this book is devoted to generalities: the "description of the ligation of an artery in its continuity," on the surface of stumps, and also to some of the other means employed to obliterate arteries. We find here a great deal

of useful and interesting matter, illustrated, as, indeed, the whole book is, with original wood-cuts, which, considering the small space they are necessarily crowded into, serve more than usually well to illustrate the special points for which they were designed. Such a cut as that which represents the artery and its veins covered by the cellular sheath fastened to a piece of cork, a pair of forceps lifting up a transverse fold of the sheath as should be done when laying bare the artery, well illustrates this point, and helps to impress upon the student the necessity for careful attention to detail, delicate manipulation and neat workmanship, not the least important of the advantages to be derived from a course on operative surgery. Students are but too apt to feel that, provided the required vessel has been found and secured, their task has been satisfactorily accomplished, and are prone to lose sight of the advantages to be gained by a study of the various steps of these operations, the manner in which they are performed and the skill thus acquired in the use of the knife. The importance of this has, we think, been fully realized by the author. Part second is devoted to "special ligations." The difficulties of this task have, on the whole, been fairly overcome, although, occasionally, the description becomes somewhat obscure, for which the translator is in part only to blame, although at many points the French idiom becomes somewhat uncomfortably apparent. We regret to see that the translator has employed such terms as "ligation" and "ligate," the somewhat pedantic substitutes for "ligature" and "tie," which we should be glad to see restored to their old place in our American surgical literature. The publishers have done their work well. The size and binding of the book are such that it can easily be slipped into the surgeon's bag or the student's pocket.

Observations on the Pathology and Treatment of Cholera; the Result of Forty Years' Experience. By JOHN MURRAY, M.D., Inspector-General of Hospitals, late of Bengal. London: Smith, Elder & Co. 1874. 16mo. Pp. 58.

WE have read with interest this little book, which will commend itself to every one who desires to know the treatment most likely to be of use in this terrible disease. The author does not believe in any specific treatment, but asserts that a very large proportion of cases can be saved by prompt and appropriate measures. As the result of many years' study of the disease during many epidemics in India, his suggestions are entitled to our respect. We have not found anything new in the book, but the descriptions of the symptoms are so clear, and the directions for treatment are so judicious, that we do not hesitate to recommend it to all who are likely to have cases of cholera to treat, as a most valuable guide.

BOOKS AND PAMPHLETS RECEIVED.

Body and Mind. By Henry Maudsley, M.D. American Edition. New York: D. Appleton & Co. 1874. (For sale by A. Williams & Co.)

Materia Medica for the Use of Students. By John B. Biddle, M.D. Sixth Edition. Revised and enlarged. Philadelphia: Lindsay & Blakiston. 1874. (For sale by A. Williams & Co.)

A Treatise on Food and Dietetics. By F. W. Pavy, M.D., F.R.S. Philadelphia: Henry C. Lea. 1874.

The Physiology of the Circulation in Plants, in the lower Animals, and in Man. By J. Bell Pettigrew, M.D., F.R.S., &c. London: Macmillan & Co. 1874. (For sale by James Campbell.)

Report of the Board of Commissioners of the Fourth Cincinnati Industrial Exposition. 1873.

Electro-Therapeutics: A Condensed Manual of Medical Electricity. By D. F. Lincoln, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

Hints in Obstetric Procedure. The Annual Address before the Philadelphia County Medical Society, by William B. Atkinson, M.D. 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, July 16, 1874.

We are gratified to learn that the prospect is very promising for the long-needed extension of building accommodations at the City Hospital. Year after year, the Trustees have pointed out in their annual report the fact that more room was absolutely needed to fulfil the demand made on the hospital. The annexation of extensive territory to the city has made the need still more emphatically felt, and the emergency was so plain and so imperative that a liberal appropriation was made by the City Council the present year to cover the necessary expenditure.

The building plans, which have been adopted by the Trustees of the Hospital, are cordially approved by expert judges (physicians and others) who have examined them. They contemplate the erection of buildings which shall combine the largest utility with the wisest and most recent sanitary improvements in hospital-construction, and which, withal, shall not be devoid of the architectural beauty characteristic of the present structure. With new, single-ward pavilions, of improved construction, with a large, well-lighted surgical amphitheatre, with an increased number of distinct wards, wherein particular attention will be paid to ventilation, with added facilities for the treatment of special cases, ophthalmic, aural, the diseases of women and of children, and with new arrangements for internal administration, we predict that the Boston City Hospital will inevitably fill a high place among the hospitals of the country, both as regards the benefits extended to the needy sick of the city, and as a field for medical and surgical observation. We sincerely trust that nothing will occur to prevent the speedy realization of plans which have been so carefully and so admirably matured.

The recent "hearing" given at the City Hall on the subject of a public park renews the hopes of those who have, for a long time, patiently waited for a second movement on the part of the city in this direction. We think his honor, the mayor, who, we are glad to learn, is warmly interested in the success of this undertaking, acted wisely in giving at the outset an opportunity for a free expression of popular opinion on the subject. Although there seems to exist, at the present time, but little doubt in the minds of the majority of our citizens as to the advisability of public grounds, laid out on a scale similar to that

which exists at present in nearly all of our large cities, the great diversity of opinion brought out on the occasion alluded to, as to the situation and extent of the park, leads one to fear that it will prove a matter of considerable difficulty to unite upon any one plan which will meet with general satisfaction—an obstacle which, undoubtedly, was chiefly instrumental in defeating the project a year or two ago. It is a good omen, however, that the matter has been placed this year in the hands of a committee, whose number is small and composed of men eminently entitled to the confidence of those who wish to see a park so situated and laid out as to be an available and agreeable place of resort for the majority of the inhabitants of the city. One of the chief difficulties in the way of accomplishing this most desirable end arises from the many advantages which the environs of the city offer for such a park. Of the innumerable plans with which the public have been entertained of late there is scarcely one that does not include most attractive portions of the surrounding country. The hearing is, we understand, to be renewed at some future day, and when the subject has been fully discussed in all its bearings, we shall hope to receive from the committee a plan which will satisfy the majority and prove creditable to the city. We have already expressed ourselves freely as to the sanitary advantages of public parks, and it is hardly necessary to repeat our opinion here. The citizens of Boston, we fear, have not, in times past, fully realized these advantages, but we hope to find that a change in public sentiment has taken place, that the disposition to lay aside all sectional feeling and leave the whole matter in competent hands has been gaining ground. Judging from the manner in which this movement has been inaugurated, and from the character of the men who now have the project in charge, we have good reason to hope that all obstacles will, on this occasion, be readily removed, and the project carried through successfully.

Pathology and Treatment of Ovarian Diseases.—*(Continued from page 43.)*—The remaining affections of the ovary are those which are the result of increased growth, usually taking the form of cystic degeneration. More rarely the growth is solid, and may be either fibro-myxomatous, or, more commonly, cancer. There are no diseases in the province of surgery where more care is needed in weighing every point in the history, every symptom and sign, for the purpose of establishing an accurate diagnosis, than in those classed under the head of ovarian tumors. It is best to make, first of all, a mental list of all the conditions that might exist, and exclude one after another until the alternative is left.

From the history alone, no ovarian tumor can be diagnosticated. The rate of increase gives no guide. The details given by the patient as to the region in which the growth was first observed are often very misleading. Tumors of one ovary are often stated by the bearers to have originated in the side opposite to that from which they are found to grow. The menstrual histories are to be almost disregarded in making the diagnosis. With some, me-

norrhagia, with others amenorrhœa, may occur. It is especially important to eliminate pregnancy, particularly the condition of hydramnios, which the author has known to be treated with fatal results, on two occasions, by tapping. The uterus, in the early months of normal pregnancy, is not unfrequently displaced to one or other side, and has often been mistaken for an ovarian cyst.

For the diagnosis of ovarian tumors, there are varied and almost numberless symptoms, the great majority being of little or no consequence for accuracy, and none of them are trustworthy. In the early growth of a simple cyst, symptoms of any kind are seldom met with until the tumor is sufficiently large to be impacted within the pelvis. The growth of dermoid cysts, on the contrary, is often accompanied by intense pain. As a rule, pain is not met with until cystic tumors are large enough, if out of the pelvis, to press on important viscera, or unless the surface undergoes inflammatory change. As it enlarges, the symptoms become more varied and numerous. In the pelvis, its pressure gives rise to dysuria or incontinence, constipation or diarrhœa, and to various neuralgias; in the abdominal cavity, by pressure on the stomach, liver and diaphragm, it often produces nausea and vomiting, distaste for food, &c. Coincidently, there appear indications of great systemic alterations.

Ordinarily, the presence of an ovarian tumor is not brought to the surgeon's notice till it has reached a sufficient size to rise out of the pelvis and appear as an abdominal enlargement. Sometimes, however, it is necessary to determine the nature of a small pelvic tumor. An ovarian tumor, in this case, will be found to be almost invariably behind the uterus. Usually, this organ can be fixed between the two hands; behind it is the tumor, and, if the uterus can be moved independently of it, and if the tumor can also be raised out of the pelvis, no doubt need be felt that it is a tumor of the ovary or of the broad ligament; how to determine between these two it is hard to say, nor is it of much consequence.

As the tumor increases in size and rises out of the pelvis, it becomes more difficult to determine that it is not intimately associated with the uterus. It is often necessary to introduce the sound to determine this point; but, as a rule, this ought never to be done at the first examination. It not unfrequently happens that menstruation goes on for a few months after conception, and to assert the diagnosis between early pregnancy and an ovarian tumor just rising out of the pelvis, at a first examination, is a task which only the rash or the greatly experienced will undertake. Only when it has been ascertained, by manipulation, that the uterus is not enlarged, may the sound be introduced. If then it be ascertained that the tumor is not uterine, that it is rounded, elastic, and capable, to some extent, of being raised out of the pelvis, it is almost certainly ovarian. It may be ovarian if fixed, though it is rarely adherent at so early a stage of growth. If fixed, it may be a hæmatocele, an abscess, or a soft tumor growing from bone; previous history, symptoms, and, above all, exploration by the aspirator, will determine these points.

When an ovarian tumor has risen out of the pelvis, and has met with none of the accidents to which it is liable, its diagnosis is easy. Palpation and percussion will eliminate phantom tumors. Fluctuation will assist in determining whether it be uni- or multi-locular. Two conditions must be carefully excluded—cystic disease of the uterus and hydramnios. In the former, the tumor will be found associated with the uterus, the latter moving along with it when moved, and being dragged upwards by it to an extent that ought always to make us cautious.

Solid uterine tumors, besides the absence of fluctuation, have in addition two vascular signs not met with in ovarian growths: namely, an aortic impulse, which may be seen and felt, and an enlargement of the uterine arteries, to be felt in the vagina.

Hydramnios generally occurs in twins. Ballottement will assist in determining the differential diagnosis between a unilocular ovarian cyst and a distended uterus.

If the tumor be found to be not uterine and solid, yet attached to the uterus, and moving it so as to lead to the belief that it is ovarian, we have a choice between a dermoid cyst, a fibrous tumor of the ovary, cancer of the ovary, or a pedunculated fibrous tumor of the uterus. Fluctuation in some part, and its peculiar nodulated character, will betray the dermoid cyst, while fibrous tumors of the ovary and cancer are very rare.

The main difficulties in the diagnosis of an ovarian tumor are met with in the subsequent stages of its growth, between the time when it has risen above the brim of the pelvis, as far as the umbilicus, until it has reached its extremest size. Fluctuation, of so much use at an ealier stage, comes to have a decreasing value. Percussion will generally show, in an ovarian tumor, the characteristic distribution of dulness, though accidental complications may vitiate the value of this sign.

The *tactus eruditus* of a practised ovariotomist can recognize—when both an ovarian tumor and ascites are present at the same time—that there is a double wave of fluctuation; one superficial and rapid, due to the ascitic fluid, and another deeper and perceptibly less rapid, due to the fluid in the cyst.

The enlargement of veins often seen in the skin of the abdomen in cases of ovarian tumor is of no great assistance as a diagnostic sign. Auscultation gives chiefly negative signs. Tapping, either for the removal of ascitic fluid or the contents of a cyst, is often a great help towards an accurate diagnosis. By the removal of peritoneal dropsy, we may discover the actual relations of an ovarian tumor, or we may find that the supposed tumor has no existence, and by removing the contents of a unilocular tumor, or of one or more of the major cysts of a multilocular growth, we may determine the existence of pelvic adhesions, of pregnancy, or of some other condition that may alter our views as to treatment.

Formerly, great stress was laid on the diagnosis of adhesions, but modern experience has led to a disregard almost wholly of adhesions that are not visceral or pelvic.

A final means for purposes of diagnosis, a *dernier resort* in cases of doubt, is the exploratory incision. The experience gained by the operator from one such case ought to assist him in avoiding its necessity in similar doubtful cases.

Mr. Spencer Wells has characterized the condition of the medical treatment of ovarian tumors as one of hopeless impotence.

The surgical treatment of ovarian tumors has now been simplified into two operations: the minor operation of tapping, which is palliative, and rarely curative, and the major operation of ovariotomy, which is either curative or fatal. Tapping by the vagina is not usually attended with good results.

The proper selection of cases for the performance of ovariotomy is one of difficulty, and can be based on experience alone. In the author's opinion, there can be only two reasons for refusing to do ovariotomy—either that the case is not far enough advanced, or that the tumor, in all probability, could not be removed. The most unfavorable case for ovariotomy is to be found in a young, healthy woman, with a medium-sized tumor. The rule ought to be to delay an ovariotomy as long as is consistent with the patient's chances of recovery, bearing in mind that it is not the healthiest that recover best.

Presupposing that a proper case has been selected, experience shows that the more nearly the patient's surroundings resemble those of a healthy private house the better. She requires some preparation for the change that is about to be made in her alvine actions. The time of the operation should be about midway between two menstrual periods. As to the anæsthetic to be employed, the author objects to chloroform, on account of the vomiting which follows its use, and he thinks sulphuric ether is not much better. He recommends the bichloride of methylene and the methylene ether. (The writer then goes on to state his method of operating.)

If there be no adhesions, and no large secondary cysts, ovariotomy, thus far, is a very simple operation. The complications and unsuspected difficulties are endless, and tax the presence of mind and ingenuity of the opera-

rator. Thus a second dermoid cyst may be found packed down in the pelvis, and it may be very difficult to remove it. For securing the pedicle, Mr. Wells's calliper-clamp is preferred.

Any tumor of the uterus had better be left alone, unless it be markedly pedunculated. If the uterus be enlarged by pregnancy, it must not be interfered with; but if unfortunately punctured in mistake for a cyst it is best to lay it open and empty it.

The after-course of a case of ovariotomy is subject to many mishaps. Of their approach, the temperature curve is the most trustworthy indication. Immediately after the operation, the temperature almost invariably falls considerably. To obviate the shock, it is well to place hot-water bottles to the sides and feet, and administer a diffusible stimulant. Advantage has resulted from the practice of giving a subcutaneous injection of morphia immediately after the operation.

For the first twenty-four hours after ovariotomy, the patient is allowed no other sustenance than ice or iced water, and, perhaps, in case of sickness, a little soda-water and brandy, or champagne. Nutriment may be given cautiously on the second day, in the form of chicken-broth or beef-tea, in small quantities, frequently, so as to obviate vomiting. No solid food to be taken till after the fourth day.

In the event of the occurrence of symptoms of peritonitis, special interference may be necessary, such as opening the recto-uterine *cul-de-sac* from the vagina for drainage. Septic poisoning is no more a peculiarity of ovariotomy than it is of amputations.

Vomiting, a frequent and troublesome symptom, must be stopped, if possible. The most useful remedy in Mr. Tait's experience is Morson's pepsine wine, given in drachm-doses every ten minutes with a little ice-water.

Flatulence is often a distressing symptom, and, if accompanied by a high temperature, is pathognomonic of peritonitis. Milk and lime-water often mitigate it, and the passage of a Burns's tube, as far as possible, up the rectum, will give much relief. Failing that, the author has frequently punctured the distended bowels with a fine exploring trocar, and kept it in for some hours, with great relief. Inflammatory attacks of the chest and diarrhœa sometimes occur. For three or four days after the operation, the catheter should be used every six or seven hours. The bowels should be kept closed by opium for seven or eight days. After the wound has healed, the patient should wear a tight-fitting abdominal belt instead of stays; for, in spite of all care in inserting stitches, there is a proneness to the formation of ventral hernia in the cicatrix for many months after the newness of the union has passed off.

The pathology of ovarian cysts involves a number of questions that have been raised and discussed by observers of the greatest eminence, but thus far there are no very satisfactory explanations of the growths. As to the causes of ovarian dropsy, we must confess that we know nothing about them. The most common form, the adenoid or proliferous, and also the rare multiple tumors, occur during the period of life when ovarian cell-growth is mature; the more rare unilocular cystic growths, besides being met with during this period, occur at the extremes of life.

The author has not yet met with an ovarian tumor that was unilocular, and he believes that all unilocular tumors in the neighborhood of the ovary are not ovarian, but of parovarian origin. The parovarium consists of a few closed linear sacs, the remains of the tubules of the Wolfian body in fœtal life, which may readily be seen on holding the broad ligament, with the ovary and Fallopian tube *in situ*, up to the light. These tubules frequently contain a perceptible amount of fluid, and are frequently accidentally found in *post-mortem* examinations, distended to the size of beans or filbert-nuts. In every truly unilocular tumor, Mr. Tait has found the ovary unaffected, though, on several occasions, he has seen it stretched over the cyst-wall.

Mr. Tait has met with an example of a rare variety of ovarian tumors, the origin of which has been traced by Rokitansky and Ritchie. In the case

recorded by the author, both ovaries were affected in their entirety. The tumors were multilocular, and had one or two major, with innumerable minor cysts, graduating down to the most minute size. The tumors had the appearance of huge white raspberries. An examination of the contents of a large number of the cysts discovered in every one more or less distinct remains of an ovum. The condition seemed to be an hypertrophy of the ovaries, with arrested development of their contents.

(To be continued.)

EXTRACTION OF A FOREIGN BODY FROM THE MALE URETHRA.—In the tenth number of *Le Bulletin de Thérapeutique* (1873), is mentioned the case of a man suffering from stricture, who was in the habit of passing an elastic catheter for himself. One day, he passed the instrument (No. 7), commencing by the end to which the bone ring is attached. After reaching the perineal region, he attempted to withdraw the catheter, but the ring became detached and remained within the urethra. The patient desired to have the ring pushed into the bladder, as pain and a desire to pass water had supervened. At a consultation of Dr. Andant and Lonstalot, it was resolved to use the following contrivance: A No. 7 catheter was obtained, and the bone ring being taken to a smith, an iron rod, of the same diameter as the catheter, was chosen, one end of which was turned, so as to act as a screw, fitting the grooves of the bone ring. The instrument was put into the hands of the patient, because, by long practice, he had learned the peculiarities of his urethra. The presence of the bone ring in the urethra having been previously ascertained, the patient was directed, when reaching the ring, to roll the free end of the rod in his fingers, so as to introduce the male screw into the ring. This was very cautiously and cleverly done, and when it was supposed that the rod was sufficiently fixed, it was slowly withdrawn, and the ring was brought to light, to the great satisfaction of both the patient and the surgeons.—*Lancet.*

THE distribution of the Hospital Sunday fund, by the Committtee, was as follows:—

Massachusetts General Hospital	$4,531.74
Carney Hospital	862.84
Massachusetts Homœopathic Hospital	571.02
Channing Home	574.16
House of the Good Samaritan	971.42
St. Elizabeth's Hospital	555.72
The Children's Hospital	1,147.27
St. Luke's Home for Convalescents	641.45
New England Hospital for Women and Children	1,146.03
Massachusetts Charitable Eye and Ear Infirmary	916.79
Boston Dispensary	829.92
Charlestown Dispensary	265.00
Dr. Cullis, Consumptive's Home	90.00
Dr. Cullis, Cancer Hospital	200.00
Boston Lying-in Hospital	5.00
Children's Mission	.60
Total	$13,309.96

The above distribution of the general fund is based on the number of weeks of board and treatment given gratuitously by the hospitals during their last financial year. The last four-named institutions on the list were the recipients of special contributions alone.

Correspondence.

Letter from Philadelphia.

PHILADELPHIA, June 4, 1874.

MESSRS. EDITORS,—A poorly drained city may be fairly compared to a case of empyema left to the tender care of nature, who, strive as she may, is sometimes but a clumsy physician. Virchow's pamphlet, "Drainage or Diarrhœa," roused the authorities of Berlin to the necessity of providing their unwholesome city with an alimentary canal. Would there were a Virchow here! How the city of Philadelphia escapes yearly epidemics of cholera, typhoid fever, diarrhœa and kindred evils is a problem. Drainage facilities are in process of construction here and there, but authorized less with a view to promotion of public health than for the purpose of giving a profitable job to a slave of the "Ring." Even at this early season, smells are countless. Every district has its peculiar odors, and one involuntarily recalls the famous couplet of Coleridge in relation to the city of Cologne:—

"Ye nymphs who reign o'er sewers and sinks," &c.

The advance of summer is to be dreaded, for the historic cleanliness of the Quaker City has departed. I have seen typhoid in the Berlin hospitals until it became fairly monotonous to visitors as well as to the physician, who frequently skipped an entire ward, remarking, with a shrug of the shoulders, "*nichts als typhus.*" He knew well enough how it originated, but was powerless against the cause, just as physicians are likewise powerless in our ring-ridden city. There are commissioners of streets in Philadelphia. They handle large appropriations, but what becomes of the funds is a query more opaque than the riddle of Samson. There are hundreds of strong men here who eat their crust and their potato without knowing how another mouthful can be obtained, and still the streets remain filthy. Yorick's skull could scarcely be more offensive than some of them. In eight months, the street in which I reside has been cleansed *once*—a prominent highway at that.

I once spent a summer in a little German town whose streets were sweet and clean as a pine grove. I had frequently noticed about the town men in couples, pushing before them big casks suspended between wheels. They constantly stopped to enter houses along their route, carrying with them vessels filled with a liquid which they took from the casks. I noticed, too, that they poured this same fluid into the gutters and sewers. Upon inquiry, I learned that the casks contained a disinfecting, deodorizing liquid, of which every householder, who had not already sweetened and purified his belongings, was obliged to purchase and use a certain quantity, or which was thus applied by the carriers. I was struck with admiration, and wondered whether such a procedure would be considered too autocratic in republican America. But, Heaven help us! Worse diseases infest our city than those which proceed from gutters and garbage, and but for which our streets would be well sewered and clean as house-floors. Knavery and selfish, gluttonous greed are those diseases, the specific for which seems to be unknown. The honest many knuckle to the unscrupulous few.

It seems improbable that I shall ever be able to avoid mention of the Siamese twins. They were nearly repeated the other day in North Carolina. A colored woman gave birth to twins, united precisely as were the Siamese twins, with the exception that the union was more extensive in proportion to the general development. Both children were perfectly formed, one being smaller than the other. The supply of blood during fœtal life was the same as in case of the Siamese twins, namely, by one umbilical cord, which entered the middle of the connecting band. But for want of timely aid at birth, this new monster would probably have lived. A curious feature in the new pair of inseparables was, or rather is (for the bodies have been preserved), that one is black, the other mulatto. This case reminds me of the

wondrous tales of monstrosities told in a queer little book, now one and a half centuries old, which I unearthed in a German town as odd as itself. The book was written by Ernst Antons Nicolai, a learned doctor, who gravely discusses mothermarks and monstrosities most edifyingly. He is, however, especially severe upon one Thomas Bartholinus, who reports the birth of a child with a cat's head, the original cat having frightened the mother in the early days of pregnancy by concealing herself in the bed. "The worst of these stories," says Nicolai, "is that even learned men accept them on faith, and without sufficient inquiry as to whether they be well grounded." "Now Bartholinus has imparted to the world the history of a child with a cat's head. In order, then, that this cat might be of use and have something to do, the story of the cat must be followed by that of a rat, and close thereupon Bartholinus relates that 'a lady brought into the world a great rat; this rat disappeared with great speed, and the witnesses, who never saw it again, were uncommonly frightened.' Bartholinus would have been very angry if these stories had been doubted, 'for,' continues he, 'I will not hope that these true events may become misbelieved,' and in order to convince his readers of his veracity: 'I hear,' says he, 'from a Polish nobleman, that a woman in his country gave birth to two small fishes, without scales, which, so soon as they were born, swam in water like other fish.' If I gave my opinion (drily adds Nicolai) it would be that these fish swam a great deal more in Bartholinus his head than in the water." And then this delightful old fellow, in a sort of German, which I cannot begin to put into modern English of the same flavor, goes on describing monsters which had a truer existence than the cats and rats of Bartholinus.

If I were writing on monstrosities, I should not fail to make use of some of these extremely interesting abortions, which are described by Nicolai with a quaintness and physiological opacity more than amusing.

This afternoon, the new University Hospital building will be dedicated. Besides the main structure, now completed, pavilions are to be erected, in order to give increased accommodation to patients. In consideration of the generous gifts from State and city, a large number of free beds are to be kept "forever" open to the sick and poor of the Commonwealth, fifty beds being allotted to the city alone. In one of the pavilions now erected, bathing facilities, very perfect in character, are to be arranged under the supervision of Dr. Duhring, and will comprise the electrical, Russian, Turkish, needle, vapor, pine, mercurial, shower, douche, constant and mineral bath, thus forming one of the most complete systems of baths yet established. The main building contains lecture-rooms, capable of seating seven hundred students. Happy University! The ground upon which it stands was presented by the city. The building funds (about $500,000) were given by State and city. Gifts have rained down upon the fortunate institution, not, however, without earnest, untiring diligence on the part of the Faculty, of whom Prof. Wm. Pepper, and John Welsh, Esq., of the Board of Trustees, have been the workers whose magical influence, in opening the pockets of individuals and the Treasury of the State, has achieved the present robust and energetic condition of the University.

Jefferson Medical College is also, it is hoped, on the smooth road to new developments. By individual subscription, $50,000 have been raised toward the expense of a new hospital. When this amount becomes doubled, the Legislature will contribute $100,000 to this object. It is to be earnestly hoped that the happy end is not far removed. Prof. Samuel D. Gross, present incumbent of the Chair of Surgery in Jefferson College, read a paper this week upon scrofula, before the National Medical Association at Detroit. The essay has attracted the attention of the whole profession.

The summer sessions of the medical schools of Philadelphia are now in progress. They consist mainly of lectures by the sub-faculty—the younger men—the subjects discussed being special topics, as laryngoscopy, pathological anatomy, minor surgery, syphilis, study of the urine, toxicology, the eye and the ear. Surgical clinics are held semi-weekly, and are, of course, conducted by the professors of that branch of medicine. The classes number,

perhaps, one-third of their winter complement, and the lectures terminate at 2 o'clock, P.M. Afternoons are devoted to reading (by those men who do read) and dissecting. Quiz-men use this opportunity for coaching their students in special matters, giving private lectures on that bugbear the brain, on the eye and ear, &c.

Professors Pancoast, senior and junior, removed yesterday the left superior maxilla of a man aged 60, for epulis, which had crept into the antrum. The incision extended along the inferior maxilla from the sigmoid notch to the median line. After dissecting and turning back the flap, the malar bone was divided by a chain saw, and the median attachments of the superior maxilla divided by bone forceps. The bone was found to be simply a mass of *débris*, and the excision encroached upon its fellow of the left side. The infra-orbital was divided within the orbit. The velum palati, having lost its attachments, fell into the pharynx, from which it was subsequently lifted and restored to its place by means of sutures, which connected it to the sheath of the right masseter muscle and the periosteum of the left malar bone. Before the cheek flap was replaced, its inner surface was seared with a hot iron. A vain attempt, perhaps, to prevent recurrence. Prof. Joseph Pancoast has done this operation thirty-five times. His experience leads him to form an unfavorable prognosis, his object in operating being mainly to prolong the life of the patient by two or three years.

I hope you have seen, or possess, a case of Barth's pathological preparations (Dr. Otto Barth, of Leipzig), one hundred in number. They are beautifully mounted in refined resin, on fine glass slides, are stained either with carmine or hæmatoxylon, disposed in racks in a highly finished box of mahogany, and, notwithstanding you find here and there a section which may be a trifle too thick, they are invaluable to physicians who use the microscope, but have neither time nor opportunity to prepare specimens for study or for use in teaching. Enclosed, I send you a printed list of the preparations, which you will doubtless be glad to show to any gentlemen who may wish to see it. Such a collection, if brought into general use, would undoubtedly create a more general interest in the microscopic study of disease.

Summer is upon us with an energy (96° in the shade) which makes one dream of the sea and the New England hills. The sublimest patience with the weather, as well as with the shameful, disgusting condition of our streets, seems to be our only resource. Naturally, we anticipate a rapid increase in the death-rate of the city, and if our commissioners of streets (recruiting sergents, rather let us say, for the dread visitant!) all become stricken with fell disease, can we pity them? UNGENANNT.

How to Discover Smallpox in its Early Stage.

CHATTANOOGA, TENN., June 11, 1874.

MESSRS EDITORS,—I ask your comments on the enclosed clipping, the date and source of which I do not know, from the fact that it came into my possession in its present form. Very respectfully yours,

J. S. BURNS, M.D.

The *Eclectic Journal*, in an article on smallpox, admonishes physicians not to be hasty in passing their opinion that any eruptive disorder is that loathsome disease until they prove the following diagnostic symptoms:—

"Now we offer this secret to the profession. So soon as the eruption appears, by pressure with the point of the finger may be distinctly felt the small, hard substance, precisely as if a small, fine shot had been placed under the cuticle of the skin. This peculiar appearance belongs to no other eruptive disease. We have applied the term secret here, for while it is and has been known to a few physicians, it is not mentioned in any of the standard authorities, nor does the writer claim the credit of the discovery. After this, all works upon practice will add this unfailing diagnostic symptom."

We are not aware that this is in any way new.—EDS.

Medical Miscellany.

THE Dublin Hospital Sunday movement has been greatly discouraged by the Roman Catholic church, but, in spite of this, some fifty churches, including Jews and Protestants of all denominations, have promised coöperation in the movement.

"PROBABLY most will agree with us that the national body [American Medical Association] was excelled in the interest of its transactions, as it was in the number of its participants, by the Massachusetts Medical Society. —*Philadelphia Medical Times*, June 27, 1874, p. 618.

DEATH FROM CHLOROFORM.—The *British Medical Journal* of June 27th says: "Another of these distressing accidents, the frequent repetition of which has already given Cincinnati an unenviable notoriety, has lately occurred [there]." *Caveat Actor!*

AGREEABLE PURGATIVE.—

℞. Magnesiæ calcinat., ʒiss.;
Aquæ puræ, ʒij.;
Syrup. orgeat (or curaçoa), ʒss. M.

HÆMORRHOIDS.—Dr. Wm. Colles, Dublin, lately injected twenty minims of tincture of perchloride of iron into each internal hæmorrhoidal tumor. No traces could be found some weeks afterward, by speculum, except nodules, of the size of shrivelled currant. The case had resisted Dr. Houston's application of fuming nitric acid.—*British Medical Journal*, June 27, 1874, p. 849.

TREATMENT OF PARAPHYMOSIS.—M. Bardinet suggests the following simple method of reduction:—

Pass between the prepuce and corona a blunt lever—the blunt end of an ordinary hairpin answers well—one end being placed in the upper, another at some nearly corresponding place beneath. The fingers are then used in drawing forward the prepuce by a sort of screwing movement, the hairpin or other blunt instrument, such as the handle of an ordinary teaspoon, acting as a lever to slide the prepuce over.—*New York Medical Record.*

IT ANSWERED WELL IN MY HANDS.—"There is a clan of practitioners," says a late writer, "of an enthusiastic and self-applauding, credulous disposition, who are invariably satisfied that, had they not done exactly what they did do, and exactly at the moment it was done, the result would have been very different, i. e., much less satisfactory. This is a most enviable disposition, for it is the source of inexhaustible happiness to its possessor throughout his life. It is also the most unphilosophical disposition conceivable, and almost fatal to self-improvement."

A SIMPLE METHOD OF REDUCING THE DISLOCATION OF THE FOREARM BACKWARDS.—Dr. Alexander Murray writes to the *New York Medical Record* of July 1, 1874, that he has reduced five cases of the above-mentioned dislocation by the method to be described.

Supposing the dislocated arm to be the left. Dr. Murray takes his position at the outside of the dislocated arm, and places the palm of his right hand to the palm of the patient's left, dove-tailing his fingers between each of the patient's. In this way, a firm hold is secured for extension. He then places his elbow as a fulcrum and for counter-extension on the forearm in front and against the lower end of the humerus, and by a steady pressure downwards and backwards, and at the same time flexing the forearm towards the shoulder, in a few minutes the luxated bones slip into their natural places. Other dislocations of the elbow can be reduced by the same method.

POISONED AT A CHEMICAL LECTURE.—A very tragic occurrence took place recently at Bucharest. Dr. Bernath, the principal of a public laboratory in that city, was giving a popular lecture on chemistry. Among his hearers was a Madame Davila, a lady of good family and intimately acquainted with the professor. The lady was taken ill in the course of the lecture, and the doctor prepared a draught for her, in which he intended to mix some quinine, but by accident used strychnine instead. The unfortunate victim was taken out into the street, and died almost instantly.—*Boston Journal of Chemistry.*

THE HORSE AND HIS RIDER.—M. Perret, a French pharmaceutical chemist, has discovered a very simple and economical method of saving horses, particularly when they are not in motion, from being tormented by flies. It consists in merely rubbing them with a little concentrated oil of laurel, which is extremely disliked by the flies. The oil should be specially applied to the parts where the flies usually settle. With about three pennyworth of this oil a horse can be annointed for three days. There is not the slightest danger in using it, and, indeed, its slightly stimulating action is beneficial to horses, and keeps their coat in good order. This expedient may also be usefully replaced by a solution of 60 grammes of assafœtida mixed with one glass of vinegar and two of water. The strong odor of the assafœtida drives away the flies, and if horses be well washed with this, not a fly will settle on them. No apprehension need be felt in using the assafœtida, which has no deleterious properties.—*The London Medical Record.*

ORE ON INTRAVENOUS INJECTIONS OF CHLORAL.—M. Oré, in a communication to the Paris Academy of Sciences, upon intravenous injections of chloral, arrives at the following conclusions: To obtain complete anæsthesia, the solution should be of one-third strength. Injection should be effected always by the process of direct puncture, without denudation of the vein. The surgeon should perform the operation slowly, so that he may sound the predispositions of the patient. When the patient indicates that a sleepy feeling is attained, anæsthesia is also imminent. From the time that sleep is produced, injection should be discontinued; in a few minutes, such a state of anæsthesia will evince itself as chloroform could never produce. The operation concluded, immobility may be removed by application of the electric current. From the commencement of the operation, the surgeon should have in readiness an electrical apparatus. Anæsthesia produced by intravenous injection of chloral is applicable to all surgical operations, especially to those of long duration, resections, ovariotomies, &c.—*London Medical Record.*

MORTALITY IN MASSACHUSETTS.—*Deaths in fourteen Cities and Towns for the week ending July* 4, 1874.

Boston, 143; Worcester, 14; Lowell, 11; Milford, 1; Chelsea, 6; Cambridge, 22; Salem, 4; Lawrence, 9; Springfield, 7; Fitchburg, 1; Newburyport, 2; Fall River, 16; Haverhill, 6; Holyoke, 6. Total, 248.

Prevalent Diseases.—Consumption, 44; pneumonia, 21.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, July 11th, 105. Males, 53; females, 52. Accident, 4; apoplexy, 3; bronchitis, 1; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 3; cancer, 2; cholera infantum, 13; consumption, 9; convulsions, 3; debility, 6; diarrhœa, 4; dropsy of the brain, 3; drowned, 2; erysipelas, 1; scarlet fever, 1; typhoid fever, 2; disease of the heart, 5; intemperance, 2; disease of the kidneys, 7; laryngitis, 1; disease of the liver, 2; congestion of the lungs, 2; inflammation of the lungs, 4; marasmus, 5; measles, 1; neglect, 1; old age, 1; paralysis, 3; premature birth, 2; peritonitis, 1; puerperal disease, 1; occlusion of the rectum, 1; syphilis, 1; teething, 1; tumor, 1; whooping cough, 3; unknown, 1.

Under 5 years of age, 56; between 5 and 20 years, 3; between 20 and 40 years, 15; between 40 and 60 years, 17; over 60 years, 14. Born in the United States, 78; Ireland, 20; other places, 7.

THE

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Original Communications.

THE DRESSING OF WOUNDS.

Read before the Massachusetts Medical Society, June 2, 1874.

By FRANCIS W. GOSS, M.D., of Roxbury.

IT is the business of the physician to know things similar and things dissimilar, says Hippocrates, in his Tract on the Surgery; and one may well believe him, in view of the contrariety of doctrines promulgated and enforced in these latter days. Only a few years ago, it was dogmatically declared that wounds should be *excluded from the air* in antiseptic dressings. Now comes an equally urgent advocacy of *leaving them untouched*—the open treatment, as it is called; while between these extremes we have every variety of practice, leaning toward one or the other method, according as the convictions of the practitioner incline him.

Since such diversities exist in the manner of dressing wounds, amounting, apparently, if not in reality, to modes diametrically opposed to each other, it becomes us to consider carefully the various methods which their advocates present; to weigh well the results claimed, as to whether they are fairly stated, or are intentionally or otherwise warped to favor the views advanced; and then to adopt such methods in the dressing of wounds as study and experience convince us to be best suited to our patients.

Few physicians are so situated that they can entirely ignore the treatment of wounds; for, although the majority of the profession may not claim to make surgery a specialty, and may decline to treat the severer injuries or diseases which are classed as surgical, yet almost all of us must attend to such as come under the classification of minor surgery, which, if mal-treated, may result most unfortunately for the patient and the physician.

Probably, from very early times, it was noticed that in injuries where the tissues were so lacerated that the wounds were exposed to the air, the condition was vastly more unfavorable for the restoration of the integrity of the part, and the rapidity of healing, than where the wounds were subcutaneous. Mr. Hunter* divided the injuries done to sound parts into two sorts, according to the effects of the accident. He says: "The first kind consists of those in which the injured parts do not communicate externally, as concussions of the whole body, or of particular parts, strains, bruises and simple fractures, which form a large division. The second consists of those which have an external communication, comprehending wounds of all kinds,

* Works, vol. iii. p. 240, quoted by Paget.

and compound fractures. The injuries of the first division, in which the parts do not communicate externally, seldom inflame; while those of the second commonly both inflame and suppurate." Mr. Paget* states that it hardly seems possible to exaggerate the importance of the principle which Hunter has embodied in these sentences. "For of the two injuries inflicted in a wound, the mechanical disturbance of the parts, and the exposure to the air of those that were covered, the exposure, if continued, is the worse."

The recognition of the fact that wounds to which the air has free access usually inflame and suppurate, has probably given rise to the attempt to render open wounds practically subcutaneous, by means of such dressings as should exclude the air. It is one thing, however, to have the tissues unbroken, and the injured parts not exposed to the air, and quite another to treat as of this class wounds to which the air has once had free admission. Unless we have good reason to believe that art can, by its appliances, render practically subcutaneous a wound that has once been open, it is better to anticipate the probability of inflammation and suppuration, and to provide for them.

The most prominent advocate of modern times for the occlusive treatment of wounds is Prof. Lister, of Edinburgh. Accepting the teachings of Pasteur, that the particles of dust which the atmosphere contains are germs of bacteria or other allied organisms, and are the exciters of the putrefactive changes that occur in wounds, he endeavors by antiseptic dressings to deprive the atmospheric germs of their septic energy, so that whatever air reaches the wound shall contain no particles capable of exciting septic changes in it. The dressings are practically impervious to the air, and are to be applied with scrupulous attention to the minutiæ which the author of the system imposes. He claims in this way to bring open wounds approximately to the condition of subcutaneous ones. His method is briefly as follows:

A piece of oiled silk protective is applied to the skin, over the protective is laid a quantity of antiseptic gauze, folded in several layers, usually eight, while between the two outer layers of gauze a piece of waterproof Mackintosh is placed. The whole is retained by a bandage of gauze, properly applied. While the part is being operated on or dressed, a spray of a solution of carbolic acid is kept constantly playing over it. Vessels are tied with antiseptic catgut ligature, and carbolized silk is used for sutures.

That the plan is a complicated one is evident. It may be carried out in hospitals, but certainly in private practice it can only be followed with extreme difficulty. If the results show it to be superior to any other method, no pains should be spared to adopt it.

Lister, as is well known, claims remarkably successful results for his method. One of his disciples† goes so far as to state that "the antiseptic method itself is not one of the possible modes of managing wounds, it is the only possible one, the only one worthy of modern surgery." Passing by the fact that there is good reason to believe that the theory of M. Pasteur, upon which Lister bases his treatment, is unsound,‡ some eminent surgeons have by no means met with so favorable results as Lister claims to obtain.

Professor John Wood, in his address, delivered before the last an-

* Surgical Pathology, pp. 118, 119.
† Lesser on the Antiseptic System. Edinburgh Medical Journal, March, 1874.
‡ The Lancet, Oct. 11, 1873, page 529.

nual meeting of the British Medical Association, relates his experience regarding the antiseptic system of dressing wounds. He has given, he believes, at King's College Hospital, Lister's method a fair trial. As long as the hospital was healthy, wounds treated by the antiseptic method did remarkably well. After a time, erysipelas and its concomitant pyæmia began to show themselves, "and the erysipelatous blush," says Mr. Wood, "appeared with blameworthy impartiality in cases treated in all kinds of ways, and almost as impartially on my own antiseptic side of the hospital, as on my colleague Sir William Fergusson's non-antiseptic side." Mr. Wood came to the conclusion that, in the generality of wounds, we could not, without danger, depart from the old rule of providing a free exit for all purulent and offensive discharges, and that for the want of this, the exclusion of air was not a sufficient compensation.

Dr. George Thompson writes* that he had used Mr. Lister's methods in his own practice at the Oldham Infirmary, and that at no small sacrifice of time and convenience he had conducted every dressing with the utmost care, but had failed to obtain results in any way better than he had been accustomed to see in dressing by other methods. He therefore visited Mr. Lister's wards to ascertain the cause of his failures. To his disappointment and mortification, he saw cases looking very much like what he had been accustomed to see in other hospitals. In two cases, at least, inflammation and suppuration had occurred after the application of the dressing, and these were explained away in one case by the access of germs, and in the other by the premature removal of a drainage tube. Mr. Lister, in his remarks on these cases, did not for a moment entertain the bare possibility of any failure of the antiseptic system, and the visitors were asked to believe that in these cases putrefaction had been absent, and to observe what an advantage it was to render, as he did, putrefaction an impossibility. Dr. Thompson says he left the wards with the last remnant of his belief in Prof. Lister dissipated to the winds.

Such testimony—and more of a similar purport might be cited—settles, it would appear, the value of Mr. Lister's carbolic acid dressings. Heretofore, he has asserted that the failure of others to obtain as favorable results as his own has been due to the fact that they have not followed his directions in every particular. Both Professor Wood and Dr. Thompson claim to have faithfully complied with Lister's instructions, and to have failed to meet with more success than is obtained by simpler and well-known methods.

Another form of antiseptic dressing is that of cotton-wool. M. Guérin adopted the theory of Pasteur, and, guided by the experiments of Tyndall, which showed that the atmospheric germs were intercepted when air was made to pass through cotton-wool, he made use of this article in the dressing of wounds, hoping thereby to prevent putrefactive changes in them. But as the subject of cotton-wool dressing has been presented in all its bearings to-day,† a passing notice of Guérin's method is all that is now needed.

A favorite method with some surgeons, particularly in the treatment of contused and lacerated wounds of the extremities, is that of immersion in water; either in that which is kept cold by ice, or in that

* The Lancet, Sept. 20, 1873.

† In a paper by Dr. T. B. Curtis, to appear in a future number.

which is warm. Billroth* states that he first saw this plan used by his earliest teacher in surgery, Prof. Baum. Billroth himself has often adopted this procedure with satisfactory results. He thinks there may be considerable latitude allowed as to the temperature of the water, adapting it to the feelings of the patient. At first, a lower temperature (54°–68° F.); later, a higher one (88°–95° F.). The immersion is to be continued from eight to twelve days, and after that it may be employed at intervals.

Dr. F. H. Hamilton, of New York, in a paper on "The Use of Warm Water in Surgery,"† advocates the use of warm water as a surgical dressing in preference to cold. In ten cases, embracing a considerable variety of injuries and diseases that demanded surgical interference, he employed, wherever it was possible, submersion of the wounded part in water, at a temperature of about 90° F. Otherwise, fomentations of warm water were applied by means of compresses, and covered with cotton and oiled silk. In most cases of submersion, the part became considerably, or extremely, œdematous, but in no case did any injurious result occur from the presence of the œdema. The average duration of the submersion was fourteen days. The results obtained by the use of warm water in this way were uniformly good.

Probably the choice of the prolonged use of warm or of cold water should depend on the condition of the patient. A strong man meeting with an injury while in full health, in whom we may anticipate powerful reaction, will endure the application of ice-cold water without harm, if not with advantage; while to one who is constitutionally weak such an application cannot be beneficially made. In any case, the use of cold water should not be too long continued, lest the vitality of the wounded part be impaired, and permanent injury be done. It is worth consideration whether, for instance, after amputations, the application of ice, which is sometimes made to the flaps for many hours, may not so diminish their vitality as to favor subsequent sloughing. The application of cold water to a wound, as it is ordinarily made, by simply laying a cold compress upon it, is soon converted, by the heat of the part, into a warm-water dressing, and, if undisturbed, in a little time becomes dry.

Poultices, particularly in hospital practice, are much less used than of old. As Billroth puts it,‡ "Formerly, cataplasms belonged to suppurating wounds as undoubtedly as the lid to the box." They are, unquestionably, of value in many cases, but experience has shown that they are not indispensable in the treatment of wounds. As to charpie, which was formerly, if not now, in use in great and unsparing abundance in Paris in dressing wounds, it is often burdensome to the patient from the quantity employed, and in suppurating wounds it soon becomes a filthy mass.

In contrast to the various methods that have been referred to, an entirely different practice—that of the open treatment—has, of late, been brought to the notice of the profession. In a work by Dr. Krönlein, recently published,§ the author relates the results of the treatment of wounds during two different periods in the surgical wards of the hospital of Zurich. During the first of these periods,

* Surgical Pathology, translated by Hackley, page 156 et seq.
† The Medical Record, Dec. 1, 1873.
‡ Op. cit., page 160.
§ The London Medical Record, April 1, 1874.

from 1860 to 1867, the wounds were covered in the ordinary way; during the second, from 1867 to 1871, the open treatment was pursued systematically.

For purposes of comparison, the following classification of cases was made: 1. Amputations; 2. Extirpations of the Breast; 3. Compound Fractures; 4. Accidental Surgical Diseases.

The mortality of the two series as regards amputations was:—

	First period.	Second period.
Thigh,	31 in 36, or 86·1 per cent.	10 in 28, or 35·7 per cent.
Leg,	21 in 36, or 58·3 " "	2 in 11, or 18·1 " "
Foot,	6 in 17, or 35·2 " "	3 in 15, or 20 " "
Upper arm,	10 in 18, or 55·5 " "	2 in 14, or 14 " "
Forearm,	4 in 24, or 16·6 " "	0 0
Hand,	0 0	0 0

The cases of extirpation of the breast showed a mortality of 32·3 per cent. in the first period, and of 13·6 per cent. in the second. The time of healing was 43 days in the former, 67 days in the latter.

Of the cases of compound fracture, 22 in 86, or 25·5 per cent., died under the ordinary treatment; 14 in 65, or 21·5 per cent., under the open.

Pyæmia and septicæmia occurred less frequently during the second than in the first period.

The time of healing was usually longer during the second period.

By the open method, healing by the first intention was not attempted. Care was taken to secure all bleeding vessels; cleanliness and a free exit for the discharges from the wounds were obtained. Stitches, bandages and all dressings were discarded.

Aside from the reduced mortality asserted to be due to the method as practised at Zurich, for purposes of observation and clinical instruction it has great advantages; because the wounds are so readily exposed to full view, and the healing or other processes are so easily seen.

On the other hand, no opportunity is given for the immediate healing of wounds, and there is wanting that support afforded by properly-applied bandages and strappings, which is in itself a comfort to the patient, and an aid to the process of healing. A source of danger at once occurs to the mind, as to whether intermediary and secondary hæmorrhage would not be likely to take place, owing to the want of sufficient support to the divided vessels of the wound. In fact, of several cases treated at the Middlesex Hospital on the open plan, in two this very accident occurred.*

This question of the open treatment of wounds, or of their closure by dressings, is not of recent discussion. From very early times, we find it occupying the attention of surgeons. Bonetus, in his "Guide to the Practical Physician," published two hundred years ago,† states that "*Cæsar Magnatus* and Septalius following him disapprove of the old way of curing wounds, used hitherto by all physicians and surgeons who every day, at least once, do cleanse and wipe them, and when they have applied new medicines bind them up again. And they blame *Galen* that, passing by the indication of most moment, he was only intent upon the lesser, that is, abstersion of the excrements and filth, the cause that breeds them being neglected, and all care of conserving the temperament and innate heat of the part;

* The Lancet, April 11, 1874.
† London, 1684. Article, Vulnera.

which, and the strength of the part, if they be taken care of, they think there will be a far less increase of excrements. And they think the heat of it will be cherisht, and strength will be added to it, if it be hindered from expiring, and its quality be preserved. Which they think they are able to obtain, by making up the defect of a natural covering with a Medicine analogous and familiar to the temper of the part; by means whereof the heat may be cherished, and its quality may be helped by its like. Whence they gather, that for to defend this heat, wounds must be seldom opened, lest the ambient Air do hurt them. But," continues Bonetus, "since the same Persons confess, that most grievous wounds have been cured by the old way of cure, and they cannot deny, but this new one has only place in simple wounds, and where the wounded party is of a good habit of Body, where great Vessels are not hurt, and the Nerves are whole; besides, there are many wounds, by their own confession, which Nature is not able to cure, unless the impediments be removed by a Surgeon, as if the Body be Cacochymick, whence comes great store of excrements, which cause Pain, Corruption of the Part, Inflammation, Worms, proud flesh and the like: Finally, since the exceptions exceed the rule, which very rarely allow the use of this new way, we must insist upon the old one, approved for many ages."

The ancients sometimes had a faith in infallible and quite complicated methods of healing wounds, similar to that which is presented in modern times, as will be evident from another quotation from Bonetus, which will compare well with some equally elaborated formulæ of these so-called more enlightened days.

"This," says Bonetus, "cures all Wounds, to a Miracle :* Take of Aqua Vitæ thrice distilled, and well rectified 2 pounds, St. John's-wort, Hyssop, Millefoil, each 2 handfuls, Frankincense, Myrrhe powdered, each 3 ounces. Infuse them 4 days, and distill them in Balneo or in Sand. Keep it. When you have closed the wound, wet it with this water, by pouring it upon the Wound, and laying on Pledgits, wet in it, with Powder of Myrrhe, Mastiche, Frankincense, Sarcocolla Bole-Armenick, Dragon's Blood, each equal parts. Make a powder; and strew it upon the suture wet with water, and apply upon that a Pledgit wet in oyl of Turpentine, and bind it, do not unbind it till the fourth day, and once every day foment the Wound as it is bound, and wet it with the same *Aqua Vitæ:* On the fourth day loose the ligature, and you will find the wound healed; but if you should not find the Wound healed, do the same again, and open it not for 3 days, wet the Wound every day, as before, then loose it, and cure it as before for 2 days."

In view of the conflicting theories, and the various dissimilar practices, recently advocated regarding the dressing of wounds, no apology is needed in calling the attention of even a learned body to the subject, and in presenting anew some practical considerations that may guide us in their proper treatment.

One point to be aimed at should be *simplicity of method.* The less complicated the dressings of a wound are, provided they fulfil all the requirements of the case, the better. The want of simplicity would be a fatal objection to Lister's method, unless it should be proved to be greatly superior in its results to any other. In the open treatment

* Op. cit., page 660.

of wounds, we have simplicity of method carried to the extreme; but, not to repeat the seeming objections to the method that have already been noticed, it is not probable that practitioners are quite ready to entirely discard sutures, strapping and bandages in the dressing of wounds. As to the application of bandages, it is well to bear in mind an old saying of Hippocrates, that it is better to apply a number of bandages to insure firmness of dressing, than a single one too tightly.

Another point of the highest importance, the neglect of which is a serious error, is *to provide, in the start, for a free exit for the discharge of any fluid that may form or collect in a wound.* In no case should the edges of a wound be so tightly confined, in their whole extent, by sutures, or otherwise, that a chance for drainage is not secured. This rule holds good for simple incised wounds, even the smallest, and where we expect healing wholly by first intention. This provision for the drainage of a wound does not preclude the proper coaptation of its edges, nor interfere with the promptness of its healing if, fortunately, there should be no accumulation of fluids within it, but will prevent suffering, and perhaps disaster, should such an accumulation occur. We have heard experienced observers say that they have seen more trouble from the neglect of this simple precaution on the part of general practitioners in dressing wounds than from most, if not all, other causes put together. As an instance of this neglect, who has not known, in wounds of the scalp, pus to burrow extensively, dissecting the tissues from the skull in every direction, thereby converting what might have been a comparatively slight lesion into one of the gravest import?

Another point that we should take pains to secure is *rest to the wound.* Especially is this true of wounds resulting from amputations. Whatever dressing we may at first apply, whether it is dry or moist, we should endeavor, during the first two or three days, to leave the wound as undisturbed as possible. If the bandages seem to be too tightly applied, they may often be partially cut away to loosen, without materially disturbing, the dressing of the wound. In this way, an opportunity is given for its early healing, if such will take place, while the granulations which form on its edges afford a barrier to the passage of septic agents, if such are present in the vicinity of the wound. Whatever views we may adopt regarding the possibility of such a mishap, all of us can but recognize the desirableness that whatever attempts at repair may be going on shall not be impeded by unnecessary interference on our part.*

The importance of pure air and of cleanliness, equally necessary in all methods of treatment, need hardly be mentioned at this time.

A chief object of this paper, while enumerating some of the more recently promulgated, and at times conflicting, methods of treating wounds, has been to re-state some of the leading principles sanctioned by the most prominent surgeons through all time, which are too apt to be lost sight of while maintaining sensational measures and startling schemes, but which must not be ignored, if the practitioner wishes to escape disasters, and to obtain the best results in any case put under his charge. Though these may be deemed small matters—minor surgery, so called—still the subject often involves serious conse-

* Vide remarks of Messrs. Savory and Callender on Pyæmia, before the Clinical Society of London. British Medical Journal, March, 1874.

quences to the attendant as well as to the patient, and has the highest classical as well as professional authority for its importance; for, of old, Homer sang:—

"A wise physician skilled our wounds to heal,
Is more than armies to the public weal."*

THE ACTION OF THE SOFT PALATE IN SPEAKING AND SWALLOWING, AS SEEN THROUGH THE NOSE IN CERTAIN CASES.

By F. I. Knight, M.D.
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The views of writers and experimenters in regard to the position of the soft palate in speaking, have, in times gone by, been very contradictory; on the one hand, some affirming that in the pronunciation of vowels, for instance, the soft palate was raised even to a complete closure of the posterior nares, and others maintaining that it remained unmoved.

Bidder *(Neue Beobachtungen über die Bewegungen des weichen Gaumens)*† had an opportunity of observing the action of the soft palate in speaking, through a large opening in the nasal region, and found that in the pronunciation of the vowel sounds the palate was indeed raised, but that the posterior nares were not completely closed.

Shuh *(Wiener Medizinische Wochenschrift*, Jan. 16, 1858)‡ communicates observations which he had the opportunity of making on a patient from whose nasal region he had removed a growth, with considerable loss of substance of the nose. He was able, on this account, to obtain a good look down upon the soft palate. He watched its action, both in deglutition and in phonation. He found that, in the pronunciation of the vowels, the soft palate was always raised. This elevation of the palate he found to be least in the pronunciation of A (ah), not up to a horizontal line; with the other vowels, he found it to be raised above the horizontal line, most by I (ee), a little less by U (oo), and still less by O (oh) and E (ay), no difference having been noted between the two latter.

Shuh observed a rising of the soft palate, at least to the horizontal line, with all the movements except the nasals.

The uvula was never visible from the nose.

These observations of Bidder and Shuh are the only ones, as far as I know, in which there has been a direct inspection of the soft palate through the nose, and in both of these there was an abnormal opening.

Although it has been noticed that by anterior rhinoscopy, in favorable cases, the posterior wall of the pharynx can be seen, yet no one seems to have hitherto observed the action of the soft palate through the healthy nose. I have recently had two patients, through whose well-dilated nostrils, by using reflected light, I could see well the action of the soft palate, in speaking and swallowing. In one of the cases, I tried all of the vowels. My results were essentially the same

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* Iliad, xi. 635–6.

† Ueber die Verschliessung des Schlundes beim Sprechen. Dr. Gustav Passavant. Frankfurt, a. M. 1863.

‡ Passavant. Loc. cit.

as Shuh's, the soft palate rising highest with I (ee), the least with A (ah), and there being not much difference between the others. I tried a few consonants, only, but with the same result.

I do not doubt there are many cases in which this action can be well seen through the nose. It has not been noticed before, because it is only since the perfection of laryngoscopy that we have usually employed strong, reflected light in examining the nose, and because, during the examination of the anterior nares, the patient does not usually speak or swallow, and so bring the soft palate up into the line of vision.

Progress in Medicine.

REPORT ON PHYSIOLOGY

By H. P. Bowditch, M.D.

[Concluded from page 12.]

Glycogenesis.

Since the publication of the report on the glycogenic function of the liver, in January, 1873, considerable progress has been made in our knowledge of this function. The results of recent investigations have been admirably presented by Dr. T. Lander Brunton, in three lectures on the pathology and treatment of diabetes mellitus, published in the *British Medical Journal* for January and February, 1874. To these the reader is referred for details which would be out of place in this report.

The so-called glycogenic function of the liver really consists of two separate and distinct processes: first, the formation of glycogen from the materials supplied by the food and its accumulation in the cells of the liver; and, secondly, the change of this glycogen into sugar and its return to the circulation. The liver thus acts as a store-house, in which organic substances can be held in reserve when presented in quantities greater than are needed for the immediate use of the organism, and from which they can be given out in a form adapted for rapid consumption whenever they may be needed. In this respect, the liver is analogous to the roots and seeds of plants, which accumulate starch and cane sugar during one season's growth, and at some subsequent period change it to glucose to provide for the further growth of the plant or for germination. This and other interesting analogies between plants and animals have been pointed out by Bernard in his lectures on "vital phenomena common to plants and animals." (*Revue Scientifique*, July–December, 1872.)

It must not be supposed, however, that the liver is the only organ which acts in this way to store up organic substances for future use. The muscles have this same power, and it has been shown by Weiss (*Wiener Sitzungsberichte*, lxiv. p. 284) that they retain their glycogen more tenaciously than the liver, for a considerable amount of glycogen has been found in the muscles of starved animals after it has entirely disappeared from the liver, and muscles are found to retain their irritability as long as glycogen remains present in them. In the embryo, nearly all the tissues are found to contain glycogen. In fact, wherever future growth or work is to be provided for, there glycogen seems to be accumulated.

The first question which presents itself in the study of glycogenesis is: What is the origin of glycogen? The experiments of Dock, already reported,* have shown that the ingestion of glucose increases the amount of glycogen in the liver, and point to the direct transformation, by a process of dehydration, of the former substance into the latter. This view derives confirmation from the experiments of Schöpffer (*Archiv für exp. Pathologie*, i. p. 73), who, following the lead of Bernard, injected a solution of glucose into the crural vein of a rabbit, and found that glycosuria resulted, while a similar injection into a radicle of the portal vein had no such effect, provided that it was not made too rapidly. It seems, therefore, that the liver has the power of removing from the blood, and storing up in the form of glycogen, the glucose brought to it from the intestine by the portal vein. This power is, however, not unlimited; for, if the sugar be brought too rapidly into the portal system, either by absorption (Bernard, *Revue Scientifique*, ii. 1066) or by direct injection, a portion of it will pass unchanged through the liver, reach the general circulation and be excreted by the kidneys. A similar effect may be produced by a ligature on the portal vein (Bernard, *Revue Scientifique*, ii. 1108). Here the sugar absorbed from the intestine reaches the general circulation by collateral channels, causing glycæmia and glycosuria. In this connection, it is interesting to note a case of diabetes reported by Andral, in which the autopsy showed obliteration of the portal vein. It should be mentioned here that the blood of the portal vein seems to contain sugar in an appreciable amount only while digestion is going on.

Many observations seem to show that the glycogen of the liver may also be formed from albuminoid substances. Bernard has shown that the liver of a dog fed upon lean meat contains a much greater quantity of glycogen than that of a fasting animal. Starving dogs, fed on gelatine and fibrin, have also been found to have an increased amount of glycogen in the liver. In the report of January, 1873, reasons were given for supposing that a certain amount of albuminoid material is absorbed unchanged from the intestine and is used for the formation of the tissues, while the peptones, after absorption, are not reconverted into albumen, &c., but, by successive decompositions, reach the form of urea and are thus excreted. A natural extension of this hypothesis is, that the liver is the organ where the decomposition of peptones chiefly takes place, and that glycogen is the form in which the non-nitrogenous products of this decomposition are stored up. The occurrence of nitrogenous substances in the bile may be regarded as an argument in favor of this view. On the other hand, it has been found by Weiss (*Centralblatt für die medicinischen Wissenschaften*, 1873, p. 552) that hens, kept on a diet of fresh meat and fibrin, lose nearly the whole of the glycogen from their livers. How far this is to be regarded as indicating a fundamental difference between birds and mammalia is a question to be settled by future investigations.

There seems to be a pretty general agreement among those who have occupied themselves with the question of glycogenesis, that fatty substances in the food do not give rise to glycogen in the liver. It has, however, been shown by Luchsinger (*Pflüger's Archiv*, viii. 289) that glycerine, when taken into the stomach, causes an increase of glycogen in the liver; owing, probably, to a direct transformation of

* This JOURNAL, January 23, 1873.

glycerine into glycogen, and not, as Weiss *(loc. cit.)* supposes, to the glycerine being used up in the place of the glycogen, thus allowing the latter to accumulate. It seems, therefore, probable (though not yet demonstrated) that the ingestion of fats may produce a similar effect, for Kühne *(Physiologische Chemie,* 1868, p. 125) has shown that the pancreatic juice has the power of decomposing neutral fats into fat acids and glycerine.

Whatever may be the particular articles of food which give rise to the formation of glycogen in the liver, there is no doubt that it accumulates in well-fed and disappears in starving animals. A change into glucose is, moreover, a necessary preliminary to its removal from the liver.

The next question, therefore, is: how is this change into glucose effected? That it is a process of fermentation is universally admitted. That the ferment which produces the change is brought to the liver by the blood seems pretty well established, for the observations of v. Wittich *(Pflüger's Archiv,* vii. 28) and others, that a change of glycogen into sugar takes place after the vessels of the liver have been washed entirely free from blood, cannot be regarded as proving that the ferment is formed in the hepatic cells, since, as pointed out by Plosz and Tiegel *(Pflüger's Archiv,* vii. 391), the process of washing out the liver with pure water, as practised by v. Wittich, is well adapted to dissolve out the ferment from the blood globules, which are supposed to contain it, and fix it in the coagulating hepatic parenchyma.

Since, therefore, the ferment in question is contained chiefly, if not wholly, in the circulating blood, it is evident that anything which causes an increased flow of blood through the liver will, by bringing a larger amount of the ferment into contact with the glycogen, produce an increased formation of glucose. If glucose be thus formed in excess of the needs of the system, so that it accumulates in the blood to an amount greater than one-third of one per cent. (Bernard), it will be excreted by the kidneys, and glycosuria will result. Now, an increased flow of blood through the liver may be caused in various ways. In the first place, the stoppage of any of the larger arteries will, by raising the blood tension, force a larger supply of blood through the liver, the calibre of the hepatic vessels being supposed to remain unaltered. This is probably the explanation of the diabetes observed by Schiff as the result of ligaturing large vessels. A rise of blood tension, also, is probably the cause of the diabetes which has been observed in the convulsions of asphyxia (Pavy, *On Diabetes,* pp. 62, 68 and 145) and epilepsy (Trousseau, *Clinique Médicale,* 3d ed., ii. p. 736).

A dilatation of the hepatic vessels, the blood tension remaining the same, will also cause an increased flow of blood through the liver. This dilatation may be the result either of direct or of reflex paralysis of the vaso-motor nerves of the liver. A direct paralysis of these nerves is the probable explanation of the diabetes caused by the section of the anterior columns of the cervical cord (Schiff, *Zuckerbildung,* p. 108), or by extirpation of the last cervical and first dorsal sympathetic ganglion (Cyon and Aladoff, quoted by Brunton, *British Medical Journal,* 1874, p. 39). The experiments of Cyon have rendered it probable that these lesions affect chiefly the size of the hepatic artery, causing little or no change in the calibre of the portal vein.

A reflex paralysis or inhibition of these vaso-motor nerves may be produced by irritation of centripetal fibres in the vagus nerve, and glycosuria may be thus produced (Bernard, *Physiologie Experimentale*, i. pp. 334–339). The well-known effect of a puncture of the floor of the fourth ventricle in producing glycosuria is probably to be referred, in part at any rate, to an irritation of the vagus nerves at their origin, while the glycosuria sometimes noticed as the result of ether and chloroform inhalation (Schiff, *Zuckerbildung*, 124) seems to be due to an irritation of the same nerves at their terminations in the lungs. It would seem, however, from recent observations of Seelig (*Centralblatt für die medicinischen Wissenschaften*, 1873, p. 934) that the "sugar puncture" not only causes an increased change of glycogen into sugar in the liver, but also prevents the sugar which is brought to the liver by the portal vein from being stored up as glycogen in that organ. Seelig found that a starving animal which had received the "sugar puncture" showed little or no sugar in the urine, but that an injection of glucose into a mesenteric vein caused immediate glycosuria, while a similar injection into a starving animal which had received no "sugar puncture" had no such effect. Similar results were obtained by injection of glucose into the jugular vein, proving, according to Seelig, that "the diabetic animal is characterized by an inability to use sugar for the nourishment of its body." These results are hardly to be explained on the supposition that the "sugar puncture" causes merely a dilatation of the hepatic vessels, allowing more of the ferment contained in the blood to come in contact with the glycogen of the liver. Further experiments are needed, before any satisfactory hypothesis can be advanced.

The third question which presents itself in the study of glycogenesis is: What is the destination of the glucose which is formed in the liver in the manner above described? That the healthy organism is able to consume all the sugar formed within itself is evident from the fact that normal urine contains no appreciable amount of sugar. It would even seem from the experiments of Tieffenbach (*Centralblatt für die medicinischen Wissenschaften*, 1869, p. 179) that still larger amounts may be consumed, for it was found that *small quantities* of glycogen or glucose could be injected into the veins or under the skin without causing glycosuria. In what particular part of the body sugar is consumed is a question not easy to settle, for it has been shown that sugar disappears very rapidly from the blood when withdrawn from the body. Hence, the importance of the rule laid down by Bernard (*Revue Scientifique*, iii. 43), when testing the blood for sugar only to use warm blood fresh from the vessels of the animal. It is not improbable that a similar rapid disappearance of sugar takes place in the circulating blood, irrespective of the organs through which it circulates. There is, however, reason to suppose that a very considerable sugar consumption takes place in the muscles, for it has been shown by Genersich (*Ludwig's Arbeiten*, 1870, p. 75) that defibrinated blood loses sugar on being conducted through a dog's hind legs, freshly separated from the body, and still retaining their muscular irritability. This disappearance of sugar is, moreover, quite in accordance with what is known of the effect of muscular activity in increasing the exhalation of carbonic acid. It cannot be supposed, however, that glucose is directly oxidized to carbonic acid, for it has been

shown (Bernard, *Physiologie Experimentale*, i. 241) that blood shaken with oxygen does not lose its sugar faster than with other gases. Moreover, it has been found that as sugar disappears from the blood lactic acid takes its place, and muscles when kept in prolonged activity are found to have an acid reaction, due to the formation of lactic acid within them. There is, therefore, no reason to doubt that a change into lactic acid by a process of fermentation is the first step in the disappearance of glucose from the organism. This view is also in accordance with the observations of Scheremetjewski (*Ludwig's Arbeiten*, 1868, p. 114), who found that the injection of alkaline lactates into the blood caused an increased absorption of oxygen and exhalation of carbonic acid, while an injection of glucose had no such effect.

The experiments of Schultzen on phosphorus poisoning (*Zeitschrift für Biologie*, viii. 124, and *Berliner Klinische Wochenschrift*, 1872, p. 417) throw light upon this subject. The action of phosphorus is, according to Schultzen, to arrest the processes of oxidation in the organism, while those of fermentation go on unchecked. He finds that in animals poisoned by phosphorus "urea disappears from the urine, and is replaced by leucine and tyrosine, which, in the healthy organism, are converted into urea. No sugar appears in the urine, but a kind of lactic acid is found in quantities exactly proportional to the amount of sugar afforded to the animals by their food. This kind of lactic acid agrees exactly in its properties with the aldehyde of glycerine, and Schultzen considers the two bodies to be identical."* The production of this substance from glucose by a process of fermentation seems, therefore, to be a necessary preliminary to oxidation, and if for any reason this preparatory fermentation does not take place, the glucose, not being oxidizable as such, is excreted by the kidneys, and glycosuria results. This seems to be the case in some forms of diabetes, and in the experiments of Scheremetjewski, above alluded to.

To recapitulate briefly. The liver has two functions:—1st, that of forming and storing up glycogen; and, 2d, that of forming sugar again from glycogen. The muscles probably possess both of these functions, and also a third function, viz., that of changing both the sugar they form and the greatest part of that which they receive from the blood into lactic acid, which undergoes combustion.

Glycosuria may result,

1st, from failure of the liver to convert into glycogen the sugar obtained from the food, either because it is brought in too large quantities to the liver, or because the liver has not the power to effect the change in question. This may be called alimentary glycosuria, and may be prevented by avoiding saccharine articles of food.

2d, from an increased transformation of glycogen into sugar, due to accelerated circulation through the liver, or to a larger proportion of ferment in the organ or the blood. (The possible participation of the muscles in the production of both these sorts of glycosuria must be borne in mind.)

3d, from a diminished consumption of sugar in the organism, "due either (a) to insufficiency of the ferment, which should convert the sugar into lactic acid, (b) to an altered quality of the sugar which enables it to resist the action of the ferment, or (c) to diminished circu-

* Brunton's third lecture, loc. cit.

lation through the muscles preventing the sugar from coming sufficiently into contact with the ferment."*

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Responsibility in Mental Disease. By HENRY MAUDSLEY, M.D. New York: D. Appleton & Co. 1874. 8vo. Pp. 300.

THIS book belongs to the International Scientific Series, and is the most practically valuable of them all. It deals with a subject of vast importance to the public, as well as to the two professions of law and medicine. The law, in most countries, lags a long distance behind the advance of true science in this matter of insanity, and the public is in a deplorable state of ignorance on the subject, in spite of all that has been of late written and said. Both law and public opinion must and will, sooner or later, range themselves side by side with those of our profession whose duty it is to uphold what are generally considered unpalatable, not to say revolutionary, truths. All those doctrines of moral, partial and transitory insanity, of limited responsibility, of dipsomania, kleptomia, and the heredity of vice and crime which have been scouted in court and by the press, but upheld here and elsewhere by professional alienists, are simply expressions of scientific truth. They may have been crudely and inadequately presented, without a sufficient array of supporting facts, but they grew out of the *experience* of those who advocated them.

In this book of Maudsley, we find all those questions relating to responsibility in various forms of insanity ably discussed, with a power of argument and a wealth of illustration seen in no other writer, unless it be our own American authority, Dr. Isaac Ray. In the first two chapters, he considers the border land between sanity and insanity, and between the latter and vice or crime. Chapter III. is devoted to classification. In Chapter IV., the relation of the law to insanity is historically considered. Thanks to certain recent intelligent decisions in the Supreme Court of New Hampshire, the United States takes the lead in a rational and scientific treatment of this question. (See JOURNAL, May 15, 1873, p. 501.) After referring to *State* vs. *Jones*, *Boardman* vs. *Woodman*, *State* vs. *Pike*, and *State* vs. *Weir*, the author says:—"These American decisions are certainly an advance on any judgment concerning insanity which has been given in this country; they put in a proper light the relations of medical observation and law in questions of mental disease, and it cannot be doubted that future progress will be along the path which they have marked out."

In Chapter V., partial insanity is considered; and by this is meant disorder apparently confined to one of the three grand divisions of mind, or even to a limited range within such division. *Affective*, as distinguished from intellectual insanity, has two principal forms, viz., *impulsive* and *moral* insanity. The former is seen in simple melancholia and in *mania sine delirio*, in the form of suicidal and homicidal impulse. It is also seen as a transitory mania in persons inheriting an insane neurosis, or an epileptic neurosis, in the absence of any other distinctly marked evidence of insanity or epilepsy. There is nothing strange in this when we consider the impulsive tendency in all forms of insanity, amounting often to a true ideational instead of motor convulsion. Hegner, the murderer of Hüttel, while quietly disclaiming insanity and justifying his act as purely one of self-defence, suddenly sprang upon the expert examining him, and as suddenly relapsed into his former calm condition.

Moral insanity is seen as *a stage* of general insanity almost invariably, and when we remember the slow development of most mental diseases, it is not strange that many outbreaks of violence should occur before the intellect becomes visibly affected. Suicides in this stage are occurring every day, and

* Brunton, loc. cit.

the death of the sufferer cuts off the evidence of insanity which a few more weeks would have undoubtedly afforded. So, when homicide is the form taken by the insane impulse, the law steps in, sees no insanity, because there is no evident delusion, and hangs the patient off hand, likewise cutting off all chance of further evidence of disease. This policy is bad enough as at present applied to *mad dogs;* it is simply barbarous when applied to the human species.

The same blind haste has distinguished the law heretofore in dealing with all forms of vice and crime. Little allowance is to be made for morbid tendencies or inherited moral deficiencies. These questions will, however, continually force themselves upon public attention, until even the law takes careful note of them. Seclusion, more or less permanent, in proper institutions, under suitable medical supervision, must take the place of capital punishment, or of ordinary imprisonment, whenever insanity is present. It is then that the degree of responsibility in any given case can be most precisely estimated and the proper discipline administered.

In most cases of affective insanity, sooner or later, intellectual derangement occurs, either in the form of weakness or delusion. It may be for a long time of a character to escape notice. It may seem to warrant some interpretation consistent with sanity. The intellectual impairment is often *partial*, in that the patient seems to reason well, except on a certain subject. Even in that direction, he may seem to be only mistaken and not necessarily deluded, as in that common form of mental disease where the delusion is a belief in the unfaithfulness of husband or wife, or of hostility and persecution on the part of friends. Homicide is often the offspring of this sort of insanity. The motive may appear, or be made to appear by a zealous attorney, as natural and sufficient. It is a mistake, in such cases, to say the patient has a sane mind, "insane on one point." He has really an insane mind, which manifests disease, mainly in one direction. The soil from which the belief and the act grow is an underlying state of insane *feeling*, of morbid jealousy, suspicion, irritability, tending to acts of impulsive violence. The patient may seem to be affected by ordinary motives, may commit the deed with deliberation and conceal it with skill, and yet be only a *madman*, taking an *insane* revenge. If he is in a state of *alienation* from his mental self, the act cannot be *his*.

The fallacy of the legal dogma propounded by Hoffbauer, that an insane man's actions are the logical outcome of his delusions, is well shown in Chapter VI. It is not true that he reasons logically from insane premises, in most cases, and it is not safe to punish him for acts which cannot be shown to have a connection with his delusion. There is not only incoherence between his ideas, but between his ideas and acts. It is impossible to infer one from the other, or to predicate what a man will do, under certain delusions. Patients often reason insanely from insane premises, and act insanely regardless of their conclusions.

The delusions are often concealed so that the most skilful experts are unable to elicit them, or to disentangle the relations between them and the patient's conduct. For instance, a boy's insanity was chiefly manifested by an intense passion for wind-mills. He would sit all day watching them, and was sent from home to break up this apparently harmless fascination. Not long after, he set fire to a house, and subsequently horribly cut and mangled a child whom he enticed into the woods for the purpose. The connection between these acts and his *penchant* for windmills is not apparent, though in this case it was direct and simple. He expected to be sent back where there were windmills!

We have space only to commend this book to all classes of readers, and especially the closing chapter, on the prevention of insanity. T. W. F.

Electro-therapeutics: A condensed Manual of Medical Electricity. By D. F. Lincoln, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: H. C. Lea. Pp. 186.

This little book is, considering its size, one of the very best of the English treatises on its subject that has come to our notice, possessing, among

others, the rare merit of dealing, avowedly and actually, with principles, mainly, rather than with practical details, thereby supplying a real want, instead of helping merely to flood the literary market.

The first thirty-eight pages are devoted to electro-physics, and contain an interesting examination into the enormous disproportion that exists between the amounts of absolute force which electrical currents, such as are used in therapeutics, actually represent, and the amounts that by their physiological action they are able to set free in the human body.

Thus, he says, (p. 22) that a current (from 50 small, galvanic cells) which in five minutes could decompose only about 6-1000ths of a gramme of water (with a resistance in the circuit comparable to that actually offered by the body) might, if applied in certain ways, keep a number of powerful muscles in continuous tetanus during the same time.

In the next thirty pages, the principles of electro-physiology are as clearly stated as the space admits, clearly enough to repay careful reading.

The remaining two-thirds of the book are devoted to diagnosis, methods of application, medical and surgical practice, cautions and apparatus.

The practical portion of the work, though in almost all other respects excellent, is not altogether free from the common fault of short treatises, that of attempting to cover the same field with long ones, often at the cost of making statements that mislead, because inadequate, and of passing too hastily over matters which might well be classed with "principles;" further, of giving too prominent a place to the triumphs won by electricity, in classes of cases where it has not, as a rule, proved of great service, or not to the extent that the text would indicate, or where it has not yet become possible to form an opinion.

The average reader has no means of judging of the credibility of authorities cited, nor how large—or small—a percentage "sometimes" represents, and desires to find in a good manual, especially one professing to deal with principles, a mirror of what his own experience *is likely* to prove, and, indeed, he always feels a little insecure, if he does not find a statement of the author's own opinion in each case. For example, p. 129, "chorea is sometimes benefited, &c.," would more fairly read, ". . . is generally not." Compare, also, cerebral and spinal congestion, &c., and spinal irritation, p. 121; paralysis of the bladder, p. 123; skin diseases, p. 134.

Dr. Lincoln's style is usually remarkably clear, and the whole book is readable and interesting.

Materia Medica for the Use of Students. By JOHN B. BIDDLE, M.D., &c. &c. Sixth Edition, Revised and Enlarged, with Illustrations.

THIS is a new edition of a well-known text-book. The author states that he has "bestowed unusual care upon the preparation of the present edition, having re-cast and often re-written the therapeutical articles."

Having a firm conviction that it is well to keep materia medica and therapeutics somewhat distinct in the minds of students, we may look upon this book, if to be used as a text-book, chiefly as a work on materia medica, properly speaking, and leave therapeutics, which no one would, from internal evidence, suppose to have been re-written for some years, on one side. A classification, which places oat-meal, Indian-meal, arrow-root and sugar among "demulcents" with liquorice, collodion, yeast and charcoal, cannot be considered as conveying any very useful ideas to the student or practitioner.

In matters of materia medica proper, we may simply remark that it is not very carefully written; the information is in the main correct, but one would hardly consult it in disputed matters, and it is not up to the present standard of pharmacy in some important particulars.

Thus apomorphia is spoken of as one of the original alkaloids of opium, and nothing is said of it among emetics. To give an instance, the discrepancies in observations upon narceia are noted, but nothing is said of the probability that the substances experimented upon have not been the same.

The methods of giving phosphorus are very deficient. The dose of phos-

phide of lime is stated as one sixty-sixth of a grain, while it is usually given in the dose of one-tenth, and even this corresponds to a very small dose of phosphorus. The few pages devoted to mechanical remedies, pneumatic aspiration, heat, cold, and electricity are far too meagre to be of any practical value.

It is a pity the work is not accurate, careful and thorough enough to fill the place it is designed for.

BOOKS AND PAMPHLETS RECEIVED.

Health and Education. By Rev. Charles Kingsley, F.R.S., F.G.S., Canon of Westminster. New York: D. Appleton & Co. 1874. For sale by A. Williams & Co.

Physiology for Practical Use. Edited by James Hinton. With an Introduction by E. L. Youmans. New York: D. Appleton & Co. 1874. For sale by A. Williams & Co.

On the Construction of the Dark or Double-bordered Nerve Fibre. By Dr. H. D. Schmidt, of New Orleans. Re-printed from the Monthly Microscopical Journal.

A Conspectus of the Medical Sciences, for the use of Students. By Henry Hartshorne, A.M., M.D. Second Edition, enlarged and thoroughly revised. Philadelphia: Henry C. Lea. 1874.

Report of the Quebec Lunatic Asylum. 1872–73.

Rare Cases of Congenital Syphilis. By L. Duncan Bulkley, M.D., New York. Re-printed from the New York Medical Journal. 1874.

Address delivered before the American Academy of Dental Science at their sixth Annual Meeting, held in Boston. By P. H. Austen, M.A., M.D.

Seventeenth Annual Report of the Board of Directors for Public Institutions of the City of Boston for the Financial Year 1873–74.

Miami Medical College of Cincinnati. Fifteenth Annual Announcement. 1874. Pp. 12.

Thirty-third Annual Announcement of the St. Louis Medical College. 1874. Pp. 16.

Transactions of the Minnesota State Medical Society. Saint Paul. 1874. Pp. 86.

DERMOID CYST IN THE ANTERIOR MEDIASTINUM.—Heinrich Kückmann, of Marburg, has recently endeavored to cure a case of the above by establishing a fistulous opening externally. The tumor had been noticed for two years, and a mass as large as a goose's egg projected externally into the neck, on the left of the middle line, and pressed on the trachea. To confirm the diagnosis, a puncture was made in the neck; but, though it was kept open, it did not prove sufficient to drain the cyst. The cyst at last perforated a bronchus, and led to repeated attacks of pneumonia, whilst masses of hair were occasionally found in the sputa. Under these circumstances, the sternum was trephined immediately beneath the intra-clavicular notch, and by chiselling away the upper end of the manubrium, a hole was made *through the bone into the cyst.* As a result of regularly repeated injections of air through the wound made by the trephine, the material in the cyst and that which had escaped from it into the bronchus were removed by the expectoration of copious and offensive sputa, loaded with particles of hair. The second fistula was kept open by laminaria tents at first, and afterwards by inserting a canula. In spite of several relapses in the patient's general condition, the injections of air were regularly continued, in order to remove the putrid bronchial secretions and favor the expectoration of the masses of hair. The cyst still communicates externally, but it is now no larger than a walnut, and it is confidently expected that in time it will completely disappear.—*Medical Times and Gazette*, June 27, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, July 23, 1874.

The early accounts, which have come to us up to the time of writing, of the college sports, held during the past week at Saratoga, indicate clearly that the movement, inaugurated within a few years, on the part of the various colleges and universities by which a new impetus has been given to the college races, and also to manly sports of all kinds, has not yet reached that degree of organization which is necessary to insure success in the future, and is, indeed, in some danger of resulting in total failure, a result much to be regretted by all who rejoice to see that physical training is in a fair way to become a more popular element in the education of young men in this country. We allude, more particularly, to the mishaps which have occurred during the last few years, helping, in a great measure, to mar the success of the University boat race, and becoming a source of much heart-burning and disappointment to students who have devoted a great deal of their time and energies to preparation for the struggle. After the shortcomings of those who had charge of the races last year, it was hoped that every precaution would be taken on this occasion to ensure a fair trial of the strength and endurance of the various participants. And, so far as we can learn, everything was done that could be done consistent with the present mode of conducting the races. It is fair to suppose, therefore, that the system itself is at fault, and that various radical changes will have to be adopted to prevent a repetition of the confusion which attended the race this year. It is, doubtless, a difficult matter to conduct a contest with perfect fairness to all parties, where the numbers participating are so great, but there are certain obvious changes which, from the experience of the past years, will, we hope, suggest themselves to those who have charge of the races in the future. Among these may be mentioned the system of steering, which American oarsmen cling to so tenaciously, a most important element of success, and one which, in an unguarded moment, may set at naught the careful preparation and training of months. There are, doubtless, many other improvements which might be introduced by earnest reformers, and all efforts directed to this end we are sure would meet with hearty approval. The important bearing of these annual contests on the taste of our American youth for physical culture, and on their love for manly sports, cannot easily be over-estimated, and it is earnestly to be hoped that they eventually may become a permanent institution.

A CORRESPONDENT of the *Boston Evening Transcript* takes exception to certain "ill-natured flings" which he says have recently appeared in the columns of this JOURNAL against the good name of one "Dr." Basto. It would hardly require the intimation given in another part of the same paper to convince one that the writer is not an expert on the questions which have given rise to his communication. The want of knowledge which the "Doctor's" friend displays is so lamentable that a reply would hardly seem to be necessary were it not for the support which his accusations receive from the paper in which they appear. While we can admire the loyalty of the friend, and even make some allowances for his ignorance, we have no excuse to offer for a paper which ought to be able to take a more intelligent and impartial view of such a matter. The person in question was the representative of a certain class of men against whose practices the profession has a right to protest, and the press in this city is largely responsible for the fact that any adventurer, whether he happens to bear a Thompsonian or other so-called "sheepskin" in his pocket, or wears it only upon his shoulders, can claim equal rights with the most conscientious and thoroughly educated practitioner. Nor is the profession wholly without blame for this state of things; a little more education in these matters, which the profession itself has the power to convey, would, doubtless, prove wholesome to the reputations of some representatives of the press, whose proclivities are but too well known, and judicious legislation, now sadly needed, would drive away a large class of irregular practitioners who thrive upon an ever credulous public.

PATHOLOGY AND TREATMENT OF OVARIAN DISEASES.—*(Concluded from page 67.)*—Of the mysterious productions known as dermoid cysts, the only part of their history about which there can be any certainty is, that they are the result of change in an ovum. There may be a doubt as to whether the abnormality takes origin in an ovum of the individual bearing the tumor, or in the ovum from which she herself was developed; in other words, whether the tumors are abnormally developed or are due to inclusion. They do not originate from impregnation, since they have been found in newly-born children, and their most common seat is in the ovaries of young women, chiefly, according to Mr. Spencer Wells, of fair complexion. The author is also inclined to set aside the view of their origin by inclusion, as the ovary is the most unlikely structure in the embryo for such a process; and, if they had their origin in such a way, we ought to find dermoid cysts in the testicles of the male quite as often as in the ovaries of woman.

There is left, then, the explanation that dermoid cysts are the result of altered nutrition of one or more ova, usually of but one. They are generally unilocular. They have no analogy to cysts somewhat resembling them in structure occurring in other parts of the body than the ovary, especially in the neighborhood of the orbit. In these latter, we have only aberrations of the normal process of the involution of epithelium.

Dermoid and dentigerous cysts have been so frequently found in children, that it may be suspected that, if their histories could be traced, they would

be found to be, as Paget suggests, either congenital or originating very early in life. It seems impossible that new tissues, so strange and displaced, should be developed after the formative powers have ceased to produce new tissues in normal positions. It seems far more simple to explain the occurrence of dermoid cysts in the ovary by hyperechetic action of an ovum at a time of life when such processes are in vogue in the economy, than at some other time when they have entirely ceased everywhere else. Fully dilated Graafian follicles have been seen in the ovaries of newly-born children containing ova which are minute, transparent and structureless cells, and the formation and destruction of ovarian cells goes on from the earliest to the latest period of existence. Supposing that, during the developmental period of life, some stimulus be given to one Graafian follicle and its contained ovum, which, for want of better knowledge, we call accidental, and that this should lead to the premature maturation of the ovum, so that, were the rest of the organism ready for the process, it might be carried into the uterus and there impregnated. Instead of destruction by rupture of the ovisac, supposing that it remain in the ovisac and share alike with the rest of the economy in developmental activity, there can be only one result, and that is the formation of structures in an incomplete way, which it would evolve completely under more favorable conditions. The usual age for dermoid cysts to come under the notice of the surgeon is from 17 to 20 years, and then it is generally certain that they have been long in existence. After puberty, the recurrent congestion of the whole sexual apparatus must stimulate into growth what is in readiness for it after having been developed long previously. Dermoid cysts, then, are believed to be the result of hyperechetic development of an ovum in fœtal or infantile life, growing into a tumor during and immediately after puberty.

Of the modes of origin of the other forms of ovarian cystic tumors, the explanations are too vague and incapable of ready demonstration to commend themselves to practical minds. All non-cancerous tumors of the ovary may be considered adenoid, for they are the result of increased growth of one or other normal constituent of the gland, without alteration, save in quantity. The common form of cyst-growth in the ovary consists in the dilatation of a physiological cyst-cavity by its own secretion poured out to an abnormal extent; and this secretion may be altered by the addition of blood or of some of its usual or exceptional albuminous products. The multiple adenoid and dermoid cysts have already been considered, and we look to another altered condition of the cell-elements to explain the remaining variety of cystic tumor of the ovary, termed by Mr. Wells and others "proliferous." To this term "proliferous," Mr. Tait objects, for it assumes what is not true, that the large cysts are the parents of the small ones. The minor cysts are secondary in point of time, but they are younger brothers and sisters, not the children, of the larger sacs.

The formation of a compound cystic tumor in the ovary may be well illustrated by blowing soap-bubbles in a basin. If the fluid be not viscid enough to enable the bells to retain their form, then the normal condition of the ovary is represented, its cells bursting and disappearing. The cell-growth is constantly going on, and there occurs some alteration in the state of matters which prevents the cell-walls bursting; the fluid in the basin is so viscid that the bells do not break, and bubble after bubble is formed, some larger, some smaller, until a large, multicystic tumor is the result. The actual appearances of the cystic ovary may be very well imitated in the basin of soap-lees. A large cyst can be made with little ones crowding into it, and the walls between two or three may be broken down, making one larger multilocular cyst. In the ovary, we have the continued production of cells, representing the continuous blowing of the bubbles, and we have only to discover what it is that is analogous in the ovary to the increased viscidity in the solution of soap; what it is that keeps the cysts in their entirety, perverting a physiological into a pathological process.

The fact that he has never found ova in any of the sacs of these multicystic tumors has led the author to entertain the opinion that in this we have an explanation of their formation. The function of the ovary is one of cyst-

formation from its earliest to its latest existence, and in its pathology we need not go far away from its physiology. The aim and object of this cyst-formation is the production, maturation and discharge of the ovum. But, if the ovum be not found, or if it be produced only to a rudimental extent, may it not happen that the cyst will not be ruptured, but go on aimlessly expanding? Whatever be the source of the change, it does not affect one ovisac alone, but it may influence many of them; whether it be in a tumor where the ova have been matured and subsequently prevented from escaping by sclerosis of the coat of the ovisac, or in a growth where the ova are not to be found. There is a great clinical difference between these two kinds of tumor; for in one the growth is very limited and slow, and in the other it may be, and often is, extremely rapid, and is practically unlimited in extent.

Correspondence.

Directions for Restoring Persons Apparently Drowned.

Messrs. Editors,—We have not an original copy of the Massachusetts Humane Society's directions for resuscitating those apparently drowned, but, in some of the newspapers, a paragraph has been recently printed, purporting to be a genuine transcript of that Association's circular, issued October 1, 1855. The writer of this article sent to one of the papers a statement of the errors in these directions; but as no notice has been taken of it, it is worth while to print it in this Journal. The following is the rule, as laid down in the papers:—

"Convey the body to the nearest house, with head raised. Strip and rub dry. Wrap in blankets. Inflate the lungs by closing the nostrils with thumb and finger, and blowing into the mouth forcibly, and then pressing with hand on the chest, and so on, for ten minutes, or until he breathes. Keep the body warm, extremities also. Continue rubbing—do not give up so long as there is any chance of success."

Error 1*st*. The body should not be allowed to remain without attention long enough to carry it to any house. Half a minute of time lost in carrying it may determine the death of the body.

Error 2*d*. The head should on no account be raised, but the shoulders should. Raising the head may be the means of preventing a gasp for breath.

Error 3*d*. The direction for inflating the chest, if followed, will, in a large majority of cases, be the means of blowing up the stomach, and diminishing the chance of getting air into the lungs. Any medical man who has tried to inflate the chest of a still-born child knows the absurdity of the direction.

The trunk should be raised to an angle of 120 or 130 degrees, the flexion being at the hip-joints. The head should be allowed to fall back between the shoulders, so as completely to close the entrance to the stomach. Now, if the nostrils be closed, the lungs may be inflated by blowing into the mouth. To do this in the most easy manner, a dry towel or other cloth of linen or cotton may be thrown over the face, by which the nose may be held more easily than with the bare fingers; through this the current of air may be more easily thrown into the chest, the two mouths being more perfectly packed together.

The remainder of the directions are well enough. Remember that a still child has been made to breathe an hour after it was supposed to be dead.

C. E. B.

Epilepsy in a Child; Death.

Messrs. Editors,—The history of the following case, transcribed from my case-book, presents some phenomena that have interested me because they are not mentioned in the books to which I have referred, and they seem anomalous, though they may be familiar to the older readers of the Journal.

S. K., æt. 2, Salem, 3d November, 1873. Large head, but well-formed; flabby flesh, with white skin; large trunk, small legs. Is beginning to walk. Appetite good. Bowels inclined to be constipated. Sleep restless. Pupils normal.

From no known cause, since his fourth month, has had from two or three to six or more spasms every day. They are preceded for some minutes by his picking his fingers and twining them together. Will fall to floor unless caught up by mother. Eyes roll up, no frothing at mouth, straightens out for three or four minutes, then puts hands to head, as if in pain there, and afterwards goes to sleep.

Child takes no notice of objects, as toys, &c., or of children.

He is in almost constant motion. Moves head continually from shoulder to shoulder, or shakes it as in emphatic negation, and, when walking or standing, body sways from side to side, as he lifts first one foot and then the other, which gives rise to a waddling gait.

Paternal grandfather began to have "fits" at the age of twenty years, which, under quack treatment, ceased for nine years, when they recurred. Latterly, the paroxysms were so violent as to require several men to restrain him. Would bite tongue, and foam at mouth. He died at an asylum for the insane. An infant brother of this child also died of "fits."

Ordered Dr. Brown-Séquard's mixture.

29th December.—Now sleeps well. Has "fits" less frequently than formerly, but they are more severe and are accompanied by stronger convulsive contractions of the limbs. Seems well nourished, and is growing fast.

In March, he had a convulsion in the night that lasted fifteen minutes, with foaming at the mouth.

In May, at solicitation of mother, omitted the bromides, &c., and ordered *zinci oxidum*. Child now says, "Mamma," and seems to recognize persons. Cries to go out of doors. Is not yet able to handle a spoon or feed himself, nor does he have a taste for toys or childish sports. Continues the movements of head and body. Still has two or three light spasms daily, when he becomes rigid, and falls unless prevented.

June 21st.—Was more restless, but appeared as well as usual during the day. At 5.45 o'clock, P.M., he awoke from a nap, frothing at the mouth, and passed into general convulsions. Right side of face first drawn up, so attendants state. Half an hour after, found pupils widely dilated, with anæsthesia of the cornea, pulse 200, and perhaps more, with convulsive working of facial muscles, and, to a less extent, those of the rest of the body. Face pallid (and so remained), surface of body hot and bathed in sweat. Respiration labored and stertorous. From time to time the spasmodic action would cease, only to return as severe as before. Ordered a tepid bath and cold to head. At 9 o'clock, P.M., as condition had not changed, allowed patient to inhale a little ether, and the twitchings soon stopped, the respiration became as natural as the mucus in the air-passages would allow (which was so abundant as to flow freely from the mouth), while the pupils contracted to their ordinary size. Thinking the danger over, I left.

According to the accounts of persons present, the convulsions speedily reappeared, and with such force as to necessitate the restraining of the sufferer's arms and legs, till he died, at 11.45 o'clock, when the convulsive seizures had lasted six hours.

Tanner and other observers speak of what appears to be but a stage of epilepsy, which they term *eclampsia nutans*, and which is characterized by a frequent bowing or nodding of the child's head. Though this patient's head did not nod, the same general symptoms were presented as in the *salaam convulsions*.

In this case, it is not improbable that death was occasioned by apnœa, due to the prolonged duration of the attack and the accumulation of mucus in the mouth and larynx. Unfortunately, however, it was not possible to make an autopsy.

Yours very truly,

Salem, July 5, 1874. DAVID COGGIN.

ANOTHER OBSTETRIC BINDER.

ERIE, PA., July 13, 1874.

MESSRS. EDITORS,—In your two last numbers, I find articles on the "obstetric binder." I think I have one much better than the "twisted sheet," though I must confess I took it from the sheet as seen in France before I came to this country. Allow me to describe it.

It consists of a leather back-pad twelve by eight inches, two straps nine feet long, each attached to the upper corner of each side of the pad, and short straps furnishing stirrups to fit the entire foot, which can be lengthened or shortened as needed. The ends of the long strap are thrown around the foot-posts and returned to the patient's hand. These, while her feet are in the stirrups, enable her to push and pull as much as she desires. I find it expedites labor very much, and I would not be without one. Do not confound this with the old fashioned "harness."

Yours truly, I. N. LABARTE, M.R.C.S.I.

Medical Miscellany.

IT is stated that the negotiations with von Recklinghausen for Rokitansky's chair have been again broken off—this time, it is believed, finally.—*Philadelphia Medical Times.*

IT is a matter of regret that we have not a law in this country similar to the 40th clause of the Medical Act of England which provides that "Anyone who shall wilfully and falsely pretend to be or take the name or title of a . . . doctor of medicine . . . or any name . . . implying . . . that he is recognized by law as a physician . . . or a practitioner in medicine," shall pay a sum not exceeding £20.

ACCORDING TO THE *Philadelphia Medical Times*, Mr. Erichsen is soon to visit this country. He will leave England on the 30th of July, and after spending a few weeks in Canada, where he has friends, will visit the United States.

THE profession in England have been somewhat startled to learn that English surgeons and physicians are not allowed to practise their profession in Chili. The Dean of the Chilian Faculty of Medicine has refused to allow British physicians to practise because "medical knowledge imparted in Great Britain was greatly inferior to that required before a degree of Doctor of Medicine could be obtained in Chili." This must, indeed, be "somewhat astounding" news to Englishmen. Whatever the merits of this particular instance may be, we are glad to hear that they have a standard in Chili, and should be still more content to learn that America had, although tardily, followed the example of other nations in this respect.

RETRO-PERITONEAL HERNIA.—Professor Waldeyer, of Breslau, publishes an article on this subject in *Virchow's Archiv*:—

An account is given of the *post-mortem* examination of a robust man, æt. 40, who died of double pneumonia. There was found a perfectly-developed, retro-peritoneal hernia, which comprised the whole of the small intestines. The colon occupied its normal position. The great omentum, rather fatter than usual, concealed the small intestines; when this was reflected, it was seen that the coils of bowel were enclosed in a rather thick, whitish sac, which included the whole mass of the small intestine. This sac had both the appearance and the structure of serous membrane, and was closely connected on all sides with the parietal peritoneum of the posterior wall of the abdomen, as well as with the peritoneum of the ascending and descending colon, its structure and texture being identical. It had numerous vessels of its own, with ramifying fat; it was quite transparent, and free from any signs of peritonitis. A median incision made it easy to remove the mass of intestine. The mesentery was normal. From the interior of the sac, it was easy to

discover that its neck corresponded to a point very nearly opposite the cæcum. The lower end of the ileum passed through this, and dragged upon the cæcum. The opening was nearly circular, as large as a two-thaler piece; its edges slightly thickened. The inferior mesenteric vein arched over the upper edge and free border of the opening. There were no signs of strangulation, and the coils of bowel could be easily drawn into and out of the sac. The bowel had forced its way into the duodeno-jejunal fossa, and had gradually pushed the right fold of the descending mesocolon before it, and thus formed a sac for itself. The neck of the sac had originally lain higher, at the junction of the duodenum with the jejunum, and had thus been forced lower with the weight of the mass. Waldeyer thinks the inferior mesenteric vein might easily have given rise to a constricting ring at the neck of the sac. —*The London Medical Record*, June 17, 1874.

NOTES AND QUERIES.

A Query concerning "Quaker Bitters."

Messrs. Editors,—I have a few questions to ask about an advertisement of bitters, which is somewhat scattered about. It contains a certificate. This certificate contains names and titles. It purports to be from *Prof.* Hayes. It is signed S. Dana Hayes, 20 State St., Boston. Who is *Prof.* Hayes? Is he *Professor* in the same college that made Dio Lewis a *Doctor?* Who is J. A. Brodhead, Esq., State Commissioner of Massachusetts? And in what department is his commissionership? The certificate says, that quaker bitters is an "officinal medicinal preparation." What does an "officinal" preparation mean? Has some one been trying to insult and injure S. Dana Hayes, State Assayer and Chemist, by calling him *Professor* sarcastically? and by making him appear to say what he never would have said, and never could have said, that quaker bitters is an "officinal" preparation, because it never was and never will be? Quere.

Castanea Vesca in Pertussis.

Messrs. Editors,—Advise your readers to make trial of the leaves of the edible chestnut, *castanea vesca*, in cases of whooping cough, and report the results. A hot infusion, three or four drachms to the pint, well sweetened, may be given to a child, as much as he will drink during the day. See U. S. Dispensatory, page 1558 (13th ed.).

The remedy is better known by the druggists than by physicians, and the leaves, fresh and dried, or an extract, are extensively sold in New York and Philadelphia for the alleviation, if not cure, of pertussis. Mr. Markoe will soon have ready an extract of chestnut leaves, which it is hoped will prove as satisfactory a remedy in the hands of others as it has in the practice of C. E. S.

July 13, 1874.

Erratum.—On page 80, twelfth line from the bottom, for "movements" read *consonants.*

Mortality in Massachusetts.—*Deaths in twelve Cities for the week ending July* 11, 1874.

Boston, 105; Worcester, 10; Lowell, 19; Salem, 5; Lawrence, 15; Springfield, 3; Gloucester, 4; Fitchburg, 3; Newburyport, 3; Somerville, 8; Fall River, 17; Holyoke, 5. Total, 197.

Prevalent Diseases.—Cholera infantum, 21; consumption, 20; pneumonia, 13.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

Deaths in Boston for the week ending Saturday, July 18th, 132. Males, 66; females, 66. Accident, 4; abscess, 1; apoplexy, 1; disease of bladder, 1; inflammation of bowels, 3; disease of bowels, 1; inflammation of brain, 1; congestion of brain, 1; disease of brain, 4; cancer, 6; cholera infantum, 17; consumption, 21; convulsions, 5; cleft palate, 1; cyanosis, 1; debility, 3; diarrhœa, 3; dropsy, 1; dropsy of the brain, 1; diabetes mellitus, 1; epilepsy, 1; erysipelas, 1; exhaustion, 1; scarlet fever, 1; typhoid fever, 3; bilious fever, 1; disease of the heart, 5; intemperance, 1; jaundice, 1; disease of the kidneys, 2; laryngitis, 1; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 7; marasmus, 6; measles, 2; old age, 1; paralysis, 1; puerperal disease, 3; rheumatism, 1; sunstroke, 1; teething, 2; tumor, 2; tabes mesenterica, 1; whooping cough, 3; unknown, 1.

Under 5 years of age, 62; between 5 and 20 years, 7; between 20 and 40 years, 30; between 40 and 60 years, 20; over 60 years, 13. Born in the United States, 89; Ireland, 30; other places, 13.

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Original Communications.

ON THE GERM THEORY OF DISEASE.

Read before the Massachusetts Medical Society, June 2, 1874.

By E. P. HURD, M.D., of Newburyport.

ON the surface and in the midst of a fluid containing organic matter undergoing decomposition are seen, with a powerful microscope, swarms of living particles, first called, by Mulder, monads. Some of these resemble minute granules, with Brownian movement, while the greater part look like tiny infusoria, and have an active motion of their own. Multitudes of short, staff-like bodies are present, and if the liquid shall have stood some time in a warm room, freely exposed to the air, little living things of a variety of shapes will have made their appearance. Prof. Cohn, in common with many others, arranges all these living particles under the genus Bacterium. Bechamp calls them microzymes. It is not necessary that the putrefying fluid shall be exposed at all to the air. You may tightly cork a perfectly fresh organic infusion, that to-day contains no infusoria, or even germs that are to be seen, and in a few days you will have the liquid swarming with living things.

Whence come they—the "infinitely little"? Are they animal or vegetable? This is a question on which there is a number of opinions. We have, first of all, the theory of heterogenesis, represented by Bastian, Huizanga, and Bennett.* The monads are the direct products of the transformation of the organic elements themselves. The granules of the living organism become the "microzymes" of decay and decomposition. The anatomical units of health become the bacteria of putrefaction. The most ardent panspermist now recognizes similar changes as a datum of science. Nobody, at the present day, expects to find a vegetable origin for cancer and tubercle. The anatomical elements of these diseases are now known to be derivable from the tissue elements of the part affected.† Moreover, all are agreed that the blood bioplasts of health—those white corpuscles of whose function we knew so little in our earlier student days—become the pus corpuscles of inflammation; these are

* See Edinburgh Medical Journal, March, 1868, for Bennett's views of the origin of Infusoria. He believes himself to have had experimental proof that all infusoria, vegetable or animal, in fermenting or putrefying liquids, originate in oleo-albuminous molecules which are formed in the fluids, and which, floating on the surface, form a proligerous pellicle. These molecules, by their coalescence, produce the lower forms of vegetable and animal life. He says he has observed their conversion into bacteria and vibriones.

† Virchow's Cellular Pathology, Lecture xix.

changes no more easily understood than the conversion of the microzymes of health into the bacteria of disintegration.*

I may remark that, to the evolutionist, who believes that vital motion is simply molecular motion, this view presents no inherent difficulty. If vitality be only a condition of certain of the allotropic states of protoplasm, then it is quite conceivable that organic products, undergoing retrograde metamorphosis, might break up into lower compounds, some of which would manifest life in its lowest phases.†

The second view is that of the "panspermists." All the infusorial animalcules seen in putrefying or fermenting liquids are the product of *germs* (ova or spores), introduced into the organism from without. The air is the receptacle of these germs, and it is from the air that we get them. If it be objected that living things make their appearance in organic infusions that have been tightly sealed from the air, it is replied that these germs pre-existed, dormant, in the organic material, waiting to become developed when the conditions should be favorable. If it be objected that if these germs pre-existed there they ought to be discernible, the reply is that practised microscopists do often detect them, stowed away in convenient recesses in the tissues or lurking in the fluids, and that if they do not find them it is no proof that they are not there, in an embryonic condition, so infinitesimal that no microscope has ever discovered or ever will discover them. If there should still be manifested ought of incredulity, we are pointed to the extraordinary fertility of the lowest vegetable organisms, whose reproductive activity is sufficient to fill with spores the earth and seas and the high heavens.‡ These spores we may draw in with every breath, we may swallow with every draught, and "the higher life is everywhere interpenetrated by the lowest life."§

The popular view respecting the living particles seen in decomposing fluids is that they are *fungus germs*. These little animalcules, if you will give them a chance, will develop into *moulds*. Hallier, for instance, has given us a beautiful theory if it should ever be proved true. The microzymes of decomposing fluids he calls "micrococcus." "Micrococcus" is simply spore dust from certain moulds, and is regarded

* The above theory certainly commends itself for its simplicity. According to Bechamp, the body is made up of these little plastide particles or microzymes. When they act harmoniously, there is health, and the fermentative processes go on regularly, but when they act inharmoniously the fermentative processes are deranged, and there is disease. The microzymes, he says, are not ferments themselves, but they secrete the ferment, a special ferment being necessary to the performance of each physiological function; they moreover produce bacteria, which latter are capable of returning to the microzyme state. After death, all organic matter returns to its original elements, and the microzymes are there to carry on the work of putrefaction.

† I am half persuaded that the views of the heterogenesists are destined ere long to prevail, yet in the present state of science it does not seem to me that we are warranted in accepting spontaneous generation as a datum of science. That living matter may, under suitable conditions, appear *de novo*, seems at least very probable, and that some, perhaps the larger part, of the bacteria seen in decomposing organic fluids may be heterogenetic transformations, carries a greater *prima facie* evidence of probability than the negative. This view could be maintained in entire consistence with the more popular view that the higher life is pervaded by the lower life, the microzymes of the highest and the lowest organisms being indistinguishable by the microscope.

‡ "That fungi should spring up everywhere, under fitting conditions, is readily explained by the enormous quantity of fruit which they produce. The dunghill Peziza sending its sporidia from its hymenium in a steam-like cloud may convince us of the powers of transmission which they possess, and a number of equally cogent examples might be adduced. A single Lycoperdon giganteum alone produces myriads of seeds."—Berkeley's Cryptogamic Botany, page 258.

§ Beale. Disease Germs, Part I, page 64.

as the principal agent in putrefaction. If the micrococcus comes in contact with substances that are capable of undergoing the alcoholic fermentation, its aspect changes, and it now appears under the familiar form of "torula," called by Hallier "cryptococcus." Sufficiently exposed to the air, *micrococcus* forms filaments of bead form, and is known as *bacteria*. Finally, sown on moist animal or vegetable substances, it developes into various aërophytic or anaërophytic molds. This theory, specious as it is, lacks sufficient confirmation. It is enough to refer to the recent investigations of M. Baudouin* to show that results negativing those of Prof. Hallier have been obtained by accomplished experimenters. Thus Baudouin, while failing to find any of Hallier's specific fungi in the cultures of contagious matter, affirms that bacteria are not fungus germs, but a transition between algæ and fungi. Prof. Lister, of Edinburgh, has arrived at similar conclusions.† His experiments indicate a curious series of changes on the part of microzymes, in accordance with the media in which they are placed. In Pasteur's solution, bacteria were seen to grow as motionless algoid threads with nucleated segments. In turnip infusion and in urine, under suitable conditions, they were seen to assume the characters of torulæ, a transformation to which Hallier also testifies. More minute species, first seen in milk, developed in urine into spirillum, which, on being introduced into turnip infusion, grew into fungoid forms, which, on being introduced into urine, reproduced the moving spirillum; as time passed, growing a smaller and smaller progeny, till they lost their spiral shape, and returned to their original form of minute bacteria.‡

Another independent observer, Madame Johanna Luders, in an interesting monograph, affirms that she has repeatedly witnessed the formation of bacteria and vibriones from the protoplasmic contents of well-defined spores of various fungi, in putrefactive fluids.§

The practical results of all these investigations may be thus epitomized. The living particles seen in decomposing organic fluids, if not precisely such transitional fungus forms as Hallier defines them to be, are, nevertheless, cryptogamic germs having a very close relation to fungi.

Admitting the cryptogamic origin of these living monads, what is their relation to fermentative and putrefactive changes out of the living organism? What is their relation to the organism in health? What is their relation to the organism in disease?

I. The term *fermentation* is now generally used in a somewhat restricted sense to denote the decomposition of ternary organic substances, their descent to a lower chemical plane, with evolution of carbonic acid, but without the evolution of any gases of offensive odor. When azotized organic compounds of higher molecular and chemical complexity disintegrate, their dissolution being attended with evolution of gases of offensive odor, we speak of the change as putrefaction.

It may be perfectly legitimate to speak of all internal changes taking place in organic substances as *fermentations*. The term would

* Culture des Infusoires. Paris, 1870. (Published in Coze and Feltz's book on Infectious Diseases.)

† "On the Germ Theory of Putrefaction," &c. Nature, July 10–17, 1873.

‡ Loc. cit. Second Paper.

§ Rindfleisch's Pathological Histology. Am. Ed. 1872. Page 32.

then include such isomeric transformations as that of starch into grape sugar by the ptyaline of saliva, the formation of oil of bitter almonds from amygdaline, due to the action of emulsine, and in fact all physiological and pathological changes taking place in the blood owing to natural or morbid influences. It seems to me, however, that it will be conducive to clearness and precision if the term be used in the limited sense of our latest chemical text-books.*

There is a marked resemblance between fermentation and putrefaction in the multitude of living particles which are developed during those processes. That fermentation is the result of disturbances set up in certain organic solutions by torulæ, has been pretty generally conceded since Cagniard de la Tour first demonstrated that yeast was composed of a multitude of minute vegetal organisms. That the various fermentations cannot be excited without such organisms, is now almost universally admitted, explain as we may the manner of action of the torula.† Moreover, the experiments of Helmholtz, Schroeder and Dusch have proved that the same relation holds between putrefying substances and the microscopical organisms that are found in them.‡ "It is now settled," says Prof. Cohn, "that without bacteria no putrefaction, and without yeast fungi no fermentation, takes place; that this decomposition is effected only through the sustenance and living activity of these microscopic cells."§

II. The question what relation these microscopical beings sustain to health is quickly answered. All the higher organisms seem to be indifferent to them. With an atmosphere charged with cryptogamic germs, as well as other organic particles, whose presence in the ordinary air of respiration has been lately demonstrated by Prof. Tyndall, we yet live and enjoy health, in spite of the rust and blight, and mould and mildew we inhale in almost every breath. Are we not daily exposed to the attacks of fungi akin to those found by Hallier in his cultures, and seemingly quite as terrible, and do we not, with impunity, pass the ordeal? Hallier's parasites seem to be, mostly, varieties of ordinary fungi?‖ How do we reconcile this with their banefulness?

Furthermore, there is reason to believe that in all healthy tissues and fluids vegetable germs exist, which, under favoring conditions, form mycetal growths, and facilitate disintegration. Beale, who is one of the most trustworthy observers, assures us that he has seen in old epithelial cells from the mouth of healthy persons, and from other mucous surfaces, germs precisely like those figured bodies represented in cholera dejections and the blood of cattle plague, by the advocates of the germ theory.¶

In fact, if portions of the blood or secretions of a healthy person be exposed in culture apparatuses to filtered air, they will, in warm

* Much of the obscurity that invests recent foreign works on the Germ Theory is owing to this vague use of the word *ferment*.

† See this subject, admirably treated by Huxley, in the Contemporary Review for August, 1872. Article "Yeast."

‡ Huxley's Lay Sermons, p. 360.

§ Nature, Jan. 2d, 1873.

‖ If we consider the great range of variability which characterizes the lower cryptogams, and that they vary according to the kind of soil on which they grow, and according to hygrometric and atmospheric conditions, we shall not be surprised to find a few common species giving rise to a multitude of different forms. This renders all attempts to classify these thallogens well nigh hopeless.

¶ Disease Germs. Part I. p. 64.

weather, be soon found swarming with "micrococcus," and if these putrefying fluids be "sown" on suitable soil *(a la mode Hallier)*, you will soon have an abundance of fungi, and most choice varieties.

Filiform cells and the interwoven tissue are almost the sole element of the fungi.* They derive their nourishment from the matrix on which they grow, and hence they are, as a rule, *epiphytes*. Yet their leading characteristic is that they feed on dead or decaying substances. It is true that there are exceptions to this:—that the Botrytis Bassiana produces that fatal disease muscardine in silk worms; that the Sporendenema Muscæ makes fatal ravages among the house flies at certain seasons; that numerous skin diseases in the human subject are due to vegetable parasites, as favus to the achorion Schœnleinii; Sycosis menti, Herpes circinnatus, and Herpes tonsurans to the Tricophyton; Porrigo decalvans to the Microsporon Audouini; Pityriasis versicolor to the Microsporon furfur; it is also true that the aphthous patches of Muguet are composed largely of the Oidium albicans, and that Leptothrix buccalis causes the teeth to decay.

It is not, however, proved that such fungi ever find favorable conditions for their growth and development, except where vital activity is low, where decay or disease is already present, or where filth, in the shape of retained excrement, furnishes just the proper soil. It is also true that the whole tribe of rusts and mildews do attack vigorous plants. That the Botrytis infestans causes the potato rust, is well known. The Oidium of the vine has ruined vine growers in almost every country where the vine is cultivated.† It has been shown that every species of corn has its fungoid parasites. It is easy to understand why animals, and especially the higher members of the animal kingdom, with vigorous circulation, and organs of secretion and excretion in full activity, should be so much less liable to disturbances from such epiphytal growths. One fact is determined by sufficient evidence. The inoculation of a healthy person with bacteria, or supposed fungus germs, is not necessarily dangerous. One may eat most of these moulds with impunity. The Kalmuck Tartars live on raw, putrid fish, or flesh of carrion, and they are said to be a healthy race.‡ The vital activity of the tissues is sufficient to preserve for a long time the fluids they contain from putrefactive changes. To quote from Golding Bird: "The blood in a vessel, even when its motion is prevented by ligature, does not *change*, in a space of time sufficient to convert it, if removed from the vessel, into a putrescent mass. The bile in the gall bladder, the urine in the kidneys and bladder, the fæces in the intestines, are examples of the same fact. This law even obtains in disease, for a serous or purulent effusion, the result of morbid action, will be preserved in the living cavities of the body unchanged, while a few hours would be sufficient to render it fœtid and putrid, if exposed out of the body to the influence of a similar heat."§

III. In view of the obscurity that still invests the metamorphoses of the lower cryptogams, it seems to me premature to predict aught respecting the causal connection of certain fungi, obtained from cultures of contagious disease matter, with the diseases in question. There is no proof that all that have as yet been found are not accom-

* Schleiden's Principles of Botany. Article, Fungi.
† Berkeley's Cryptogamic Botany, p. 261.
‡ See Bastian's Appendix E to "Beginnings of Life," vol. ii. p. cxxiv.
§ Golding Bird on Urinary Deposits. Second Am. Ed., p. 223.

paniments, or effects, and not causes of the diseased conditions with which they are found associated.* Hallier has not yet completed the cycle of proof necessary to establish the causal nexus between one single disease and the micrococcus found with that disease. He has relied exclusively on what logicians call the method of agreement—the method of difference he has not tried. It is of little account for him to show that the supposed cause A always exists with the disease B, and hence B is the effect of A. Into a preëxisting set of circumstances where B does not exist he must introduce A and produce the disease. This he has not attempted, and hence his speculations are of little worth.†

There is a wide field for experimentation in the lower animals, open to those who believe that the so-called zymotic diseases are induced by fungi. Every species must be studied in its physiological effects on the lower animals, and these experiments must, as far as possible, be repeated on the human subject. It will then be determined whether these microphytes have any action on the healthy animal system, except so far as they produce a toxic effect. It will be seen whether the blood of a living human being really furnishes such a favorable habitat for the growth and multiplication of the "living ferments" as Messrs. Coze and Feltz, with other partisans of the "animated pathology," seem to think.‡ That our knowledge of the fungi in their toxic and medicinal actions would be greatly extended by such a series of patient experiments is undoubted. Many of them are already known as powerful poisons, and some, as the secale cereale, have been utilized as medicines. The latter is no less notorious for the fatal gangrene it produces, when bread, made from the rye which contains the fungus in excess, is eaten. The fumes of the large puff-ball, Lycoperdon giganteum, have properties similar to those of chloroform,§ and the Agaricus muscarius, when dry, is a well-known promoter of intoxication.‖ All these effects, however, are strictly toxic.

Moreover, before the animated pathology can be established on a scientific basis, it must be shown, as Ranse has clearly pointed out, that the infected atmosphere contains spores identical with those of the fungi obtained by the culture of the bacteria, and that the same spores are in every way like the elementary corpuscles contained in the morbid products.¶ It will now be seen what a hiatus remains to be filled, before the animated pathology can be accepted as accounting for the origin of contagious diseases in general. We have now to ask, does this specious theory lay valid claim to any one zymotic disease?

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* "As soon as fungi have developed themselves freely in animal fluids possessing special contagious properties, such as vaccine lymph and smallpox lymph, the specific characters of the poison become weak or disappear."—Beale's Disease Germs, part i. p. 82.

† It is, moreover, noteworthy that competent experimenters as Baudouin, Engel, Coze and Feltz have repeated Hallier's cultures, but without confirming Hallier's results. Beale, the accomplished English microscopist, has also found reason to reject Hallier's theories as utterly untenable.

‡ See Coze and Feltz. "Recherches Cliniques et Experimentales," &c., p. 16.

§ Berkeley's Cryptogamic Botany, p. 255.

‖ Prof. Schmiederberg, in investigating the philosophical action of this mushroom, last year, noticed that, when given to animals, it caused great dyspnœa, and "at the same time the arteries became empty, so that, when cut across, hardly a drop of blood issued from them." This latter is precisely the condition which exists in cholera. This favors the view that cholera is caused by a similar poison, and not by living cells, and shows the necessity of further investigation of the physical effects of fungi. See Medical Times and Gazette, October 11, 1873.

¶ Du Rôle des Microzoaires et des Microphytes, &c. Paris, 1870.

Huxley, in his celebrated address before the British Association, intimates his belief that the great problem will have to be solved for each zymotic disease separately. Here, then, is the place to speak of the indefatigable labors of our own countryman, Salisbury.

In the *American Journal of the Medical Sciences* for January, 1866, appears a somewhat remarkable paper, from the pen of Dr. Salisbury, who is professor in a medical college in Cleveland, Ohio. He claims to have made a microscopic examination of the expectorated matters, sweat and urine of patients in intermittent fever. He found an abundance of corpuscles, of an algoid type, resembling the lowest known vegetable organisms, the protococcus of Arctic snows; these he assigned to the group Palmellæ, giving them the generic name, *gemiasma* (meaning earth miasm). These palmelloid cells were found with wonderful constancy in the principal secretions of aguish patients, and corresponded exactly with cells obtained by suspending glass plates over broken ground at night, in places where malarious emanations were known to arise. He found the palmella encrusting the soil of aguish districts, and absent, both from the soil and the atmosphere, of regions known to be free from malaria. He determined the height to which the algoid corpuscles rise, giving a rational explanation of the experiential fact that regions above such level are free from ague. During the night, moreover, the air is more charged with these spores than during the day, as they are carried above the soil in the cold vapors, to fall to the ground during the sunshiny day, when the rarefied air can no longer hold them in suspension. This is his explanation of the fact that aguish districts are especially deleterious to night residents. The palmella is, according to Salisbury, the *materies morbi*, the *miasma vivum*. Not content with what the late Mr. Mill would style the method of agreement, he has endeavored to comply with the other necessary requirements of proof. He carried to non-aguish districts, from marshy ground, boxes of earth, covered with the unicellular vegetation, choosing hilly regions, free from malarious emanations, and on the sills of second-story chamber windows, exposed the boxes of pernicious earth. A plate of glass suspended over the boxes during the night was found covered with the palmella spores in the morning. Two young men, sleeping in the apartment, took the disease, the one on the twelfth, the other on the fourteenth day, no other members of the family being affected. In another similar experience, a young man and two children were exposed to the emanations from the palmella; the two children took the fever.* All this is very plausible, and it is to be desired that Salisbury's theory may be established by future observers, for then would the vexed question of malaria be settled. Salisbury's views are quite in accordance with those of some of the highest authorities. Thus Niemeyer (while ignoring Salisbury's experiments) has "no hesitation in saying, decidedly, that marsh miasm—malaria—must consist of low, vegetable organisms, whose development is chiefly due to the putrefaction of vegetable substances.†" Flint seems strongly disposed to accept Salisbury's discovery without reserve. He believes that something more than ordinary vegetable decomposition is necessary, since the disease is indige-

* For this statement of the contents of Dr. Salisbury's paper, I am indebted to Flint's Practice, 3d ed., and the pamphlet of Ranse, "Du Rôle des Microzoaires et Microphytes."

† Text-book of Practical Medicine, vol. ii. p. 621.

nous in certain localities, whereas there are other regions where vegetable decomposition occurs just as abundantly, that are free from malaria. Moreover, the poison is of a kind that is easily borne along by the wind, or arrested by trees and other barriers, or absorbed by bodies of water, which gives probability to the supposition that it consists of spores of some kind. Moreover, malarious fever is more common in the summer season, when, of course, cryptogamic vegetation is most abundant. Assuming, then, the cryptogamic character of miasma, it would seem to be an easy matter to verify or disprove Salisbury's results. As far as I have been able to ascertain, no microscopist of any note has verified them. Niemeyer, in the later, as in the earlier editions, of his text book, declares that no one has ever seen the spores whose existence he hypothecates as the malarial principle. Did the presence of the "Gemiasma" cells uniformly and universally attend intermittent fever, it is astonishing that they have escaped the observation of so many experts, the world over—men whose lives are devoted to the investigation of the "infinitely little," and who are even more familiar with the microscopic world than with the world of ordinary vision. This alone should inspire us with grave doubts concerning Salisbury's theory. Of foremost utility, at the present day, is the bold and original investigator; possibly the next position in the order of merit belongs to the conservative sceptic who doubts, and doubts till conviction is forced upon him!

> "Truth never can be confirmed enough,
> Though doubts did ever sleep."

Salisbury has left a great lacuna in his theory—he has not told us if he has found the palmella in the blood of his ague patients. This is a grave omission, for it is in the blood that the important changes take place. Moreover, granting the presence of the palmella in the urine of those who were the subjects of Salisbury's experiments, those corpuscles may have been only occasional concomitants, and not necessary etiological antecedents of the disease. Salisbury admits that he has found, associated with the palmella, other cryptogams, belonging to genera, Torula, Penicillium, Aspergillus, Sphærotheca, in the urine of ague patients; but these he regards as accidental. The palmella may have been equally accidental.

The strongest confirmatory evidence in support of the palmella theory is that afforded by the apparent communication of the disease by emanations from those boxes of earth. There is, however, even here, no absurdity in the supposition that the real miasma may have been a subtle chemical principle, possessing peculiar toxic properties, generated, under extraordinary conditions, from decaying organic matter, and intimately associated with the lowest algæ and fungi. The marsh miasm more resembles in its action a spreading chemical poison, than it does the "infinitely little" organisms, multiplying themselves in the blood, at the expense of the oxygen and pabulum of the tissues. Here is the startling fact that malaria does not reproduce itself in the system of the person affected—that, as Niemeyer expresses it, "there is no soil in the human body favorable to its development or increase." It thus resembles snake poison. The direct effects of malaria on the blood are those of a poison. "In the worst cases, the blood becomes speedily darker in color, and otherwise altered, and accumulates in extraordinary amount in the internal organs, where it then suffers still

further in consequence of its stagnation and want of purification by the ordinary processes of excretion. The fit of ague is the reaction of the vital powers against this cumulative influence of the poison on the blood; if the vital powers are strong, and the dose of the poison not overwhelming, the fit successfully removes the internal congestions, and partially restores the purity of the blood through increased excretion; but some poison being still in the system, similar effects are again produced, after longer or shorter intervals; and so alternate attacks and intermissions appear in succession."*

Till, then, more convincing experiments shall have been performed, the poison theory of the older pathologists will hold against the living ferment theory of the newer.

Salisbury, who certainly has the merit of being an indefatigable worker, has extended his investigations in other directions, and is so thoroughly possessed of the vegetable parasite hobby, that every communicable disease must be accounted thereby.

It is needless to say that Dr. Salisbury finds cryptogams in everything. In an interesting paper published in the *American Journal of the Medical Sciences* for January, 1868, he describes the Crypta syphilitica, and the Crypta gonorrhœa, two algoid productions, which he regards as the causes of venereal affections. It suffices to say that his observations have never been confirmed, and that his venereal cryptogams will have to rank along with the notorious Löstoffer corpuscles. Salisbury has published another paper, in which he traces that common exanthem, measles, to the presence and action of another microphyte, the so-called *alga morbilli*. This is of interest, considering that Hallier is equally certain that, commonest of all molds, the *mucor mucedo* is the real *materies morbi*.†

Messrs. Coze and Feltz have given us some most interesting researches, clinical and medical, on infectious diseases, in a work that has not been translated. Animated by an admirable scientific spirit, they have examined and analyzed the blood and secretions of a variety of contagious diseases, and have proved the presence of infusory animalcules and other figured bodies in abundance in those diseases. They have also demonstrated remarkable changes in the amounts of oxygen, carbonic acid and waste extractive matters in the blood, such as we should suppose would be effected by the swarms of microphytes that inhabit diseased organic fluids. It cannot but be that the work of decomposition and disintegration would be accelerated by the presence, multiplication and vital activities of such countless multitudes of living things, and this seems really to be their office in the economy of nature. Though not the principal factors, they are doubtless important adjuvants, of disease. It is where vitality is low, or absent, that they flourish. That all prostrating diseases, of whatever nature, should be attended with their presence in the blood and secretions, seems but a truism which every experienced microscopist is every day confirming. That they have any power to initiate disease in healthy organisms is yet unproved. Coze and Feltz, with all their painstaking, have not established, nor do they claim to have established, such nexus between their "mycrozymes" and any infectious diseases.

Prof. Ferdinand Cohn's little pamphlet, in German, on "Bacteria,"

* Quoted from Williams's Principles of Medicine, page 84.
† See his work on Parasitic Diseases, translated by H. C. Perkins.

which has been put into my hand by a friend, defends the specificity of the microzymes of all contagious diseases. The bacteria of contagious diseases, he says, are unlike those of ordinary fermentation and putrefaction. Prof. Cohn is not supported in these conclusions by the majority of his fellow-workers,* many of whom are as trustworthy observers as Prof. Cohn. Any differences between the microzymes would seem to be consequent on the altered nature of the fluids which are their habitat. Prof. Cohn feels certain that, in the cattle plague and other contagious diseases, bacteria are the "carriers and initiators" of the maladies. But it is evident that it is quite impossible to introduce bacteria into the blood of a healthy animal without at the same time introducing with them septic or putrescent matters which might initiate disastrous changes in the blood, and become the elements of contagion.

There are a few well-attested facts that of themselves seem to give the death-blow to the vegetable parasite theory of contagious febrile diseases. I will briefly enumerate two. The researches of M. Davaine in connection with that fearful epizootic disease in cattle known as *sang de rate*, which, communicated to the human subject, manifests itself in the form of malignant pustule, have determined that the epizootic is characterized by the presence of multitudes of little organisms, allied to vibriones in the blood of animals affected.† "Whilst this affection is always capable of being reproduced in a previously healthy animal by the inoculation of some of the fresh blood of an animal which has recently died of the disease, the blood of such an animal loses its powers whenever it becomes putrid. . . . Rabbits which had been fed upon the fresh organs of some of the animals that had recently died of the disease, almost invariably became affected, . . . whilst of other animals which had been made to swallow similar quantities of liver, after it had become fœtid (and, therefore, swarming with bacteria), only one out of eight died, and even that one, which was found to have suffered from an inflamed lung, did not reveal any trace of organisms in its blood." "These experiments," continues Pasteur, to whose work on the "Beginnings of Life" I am indebted for these facts, "seem only explicable on the assumption that in the cases where the 'blood' was communicated to other animals by inoculation, the disease was communicated, not so much by the direct multiplication of the stock of inoculated organisms, and then spread throughout the body, as because some of the inoculated matter had the power of setting up certain changes of a spreading character which soon sufficed to produce a condition of blood similar to that usually preceding the development of organisms in the disease.‡"

Another fact of importance, as telling against the germ theory, is recorded by Dr. Burdon Sanderson. "In sheep pox (a disease closely allied to, and even more virulently contagious than, smallpox) all the diseased parts are infecting, while no result follows from the inoculation, either of the blood or of any of the secretions; the liquid expressed from the pulmonary nodules has been found by M. Chauveau to be extremely virulent, certainly not less so than the juice obtained from the pustules." Dr. Bastian, in commenting on this remarkable

* See Beale's "Disease Germs," Part I. page 69, for support of this statement.
† Compt. Rend., 1864 and 1865. Quoted by Bastian in his "Beginnings of Life."
‡ Beginnings of Life, vol. ii. p. 363.

fact, observes that "although in other of these diseases the blood does undoubtedly exhibit infective properties, still the ascertained existence of even one exceptional case among maladies so contagious as sheep pox, seems absolutely irreconcileable with the truth of the germ theory, more especially when this theory was started principally to explain the phenomena of such highly contagious diseases."*

My criticism of the Germ Theory of Disease would be too incomplete were I to omit mention of another germ theory, for which we are indebted to that distinguished microscopist and histologist, Dr. Lionel S. Beale. Dr. Beale, while rejecting the vegetable parasite theory, believes in the *contagium vivum*, and gives us a new animated pathology. As this most modern doctrine of contagion is based on recent discoveries of the greatest value, I shall devote several pages to an examination of Dr. Beale's "Disease Germ" theories.

According to Beale, the active principle of all febrile contagious diseases is of *animal* origin. It is not a dead ferment, but living matter—bioplasm. It is bioplasm that has undergone degeneration, and is no longer fit to make tissue or assist function. There is a striking similarity, thus far, between this view and the older view put forth by Claude Bernard in the *Revue des deux Mondes*, and by Lucaze Duthiers in a pamphlet published in 1865. According to this, the animal organism is a colony of zoöids, or separate living units, forming a very close partnership, and working for their own and the common good. There may be riot and insubordination among the zoöids, and then there is disease, and the whole fabric is shaken. The refractory zoöids, like little pirates, attack certain organs, and the stress of the disease falls there. So Beale's little aggregations of degraded bioplasm assume a low, selfish, predatory mode of life; they no longer work for the common good, but to nourish and reproduce themselves. They display, in short, a low kind of reproductive activity; a tendency to produce generation after generation of bioplasts like themselves, but successively degenerating; living and flourishing under conditions where normal bioplasm would perish, and able to interrupt the social harmony of other organisms when introduced there, and generate there a riotous, wasteful progeny, at the expense of the pabulum, bioplasm or formed material which they there find. Dr. Beale claims that he has seen the bioplasts of vaccine lymph, of the cattle plague and of smallpox. In his book on Disease Germs, accurate delineations of these morbid figured bodies are given. So extraordinary is the vitality of these degenerate and diseased bioplasts that they will live weeks and even months after a partial desiccation. So minute is their size, that nothing smaller than a twenty-fifth or a sixteenth will bring them into view. He believes that the essential element of all contagion is of the same nature, but possessing various properties; just as bioplasm of one kind produces nerve, of another, epithelium, &c., so certain mysterious and unknowable conditions determine the production of a diseased bioplasm which produces malarious fever, variola, scarlatina, or typhus exanthemata, &c. Some kinds are more contagious than others, because finer and more subtle, and possessing greater vitality out of the system.

In favor of the peculiar views of Dr. Beale, it is proper to remark that his views in general respecting protoplasm are quite in accord-

* Op. cit., Appendix E, page cxxvi. Op. cit., p. cxxv.

ance with the teachings of the modern German school of biology. All recognize the white corpuscles as the chief blood bioplasts, possessing a wonderful constructive power in health and being the active agents in disease. The peculiar formative power which they possess was inherited at an early period from the bioplasts of the germinal area, and the capability of dividing and subdividing and giving rise to diversified structural and functional developments, is one of the mysteries which is not easily explained by any hypothesis of polarities or the analogy of crystallization.

According to Dr. Beale, the great bulk of our bodies is structure which these little toiling, amœba-like bioplasts have built up, and which has become "formed" or dead material, as little worthy of being called living as the shell of a mollusk or the corallum of an actinozoön. Although the doctrine might be open to the objection that, therefore, the work, functional and voluntary, performed by our organs and muscles is not *vital* at all, nevertheless it can be shown that even this is good modern scientific orthodoxy. It is an easy matter, in what are called "vital phenomena," to eliminate a host of factors which are now known to be physical or physico-chemical. Thus, Matteuci,* in his Lectures on the Physical Phenomena of Living Beings, has shown that the living body manifests the properties of endosmosis and exosmosis, capillarity and inbibition, just as do non-living substances; digestion and respiration are conducted in accordance with known physico-chemical principles; sanguification and the production of animal heat are strictly chemical processes, and even nerve conduction and muscular contraction are now comprehended under physico-chemical laws. The latter tissues manifest their properties, under stimuli, for some time after general somatic death has taken place.

The peculiarly vital phenomena of all organisms are those which are performed by the bioplasts—little structureless bodies, bearing a marked resemblance to the amœba, or Prof. Haeckel's deep-sea animalculæ;† these bioplasts exist scantily in the tissues, but abundantly in the blood and lymph. They initiate all active changes in health and disease. This is the only material capable of growth and multiplication. When supplied with just enough food, and in the normal state of things, this living material undergoes that regular series of changes which result in the construction and repair of tissue. When it lives faster than in health, by being supplied with an excess of pabulum, too rapid growth and multiplication take place; in other words, a morbid bioplasm results. In this way, pus is produced from bioplasts of every description.

The "bioplasm" germ theory is a very ingenious and plausible one, and may, perhaps, be deemed worthy of provisional acceptance, till a better is found; but it is as yet unproved. According to Dr. Beale's admission, all kinds of germinal matter look alike; they are undistinguishable by any characters which the microscope or chemistry can discover, and yet he believes that he has seen the diseased bioplasts of certain infectious diseases! That I have not misrepresented

* See his "Lectures on Living Beings," translated by Pereira. See, also, Maudsley's Body and Mind, p. 124 (foot note). Also, Schleiden's application of the same method to *plants*, in his Principles of Botany, Lankester's translation, p. 84.

† See Popular Science Monthly, for December, 1873.

Dr. Beale will be seen by reference to the following pages of his work on "Disease Germs," Part II., page 29; also page 162. I will here quote but one passage:—

"It will strike many as very remarkable that the highest magnifying powers hitherto placed at our disposal, serve but to convince us that a minute particle of the bioplasm of the most malignant tumor, or the most rapidly growing pus corpuscle, resembles, in every particular that we can ascertain by observation or experiment, a minute particle of healthy living bioplasm from the blood or from any tissue, and it is proved beyond a doubt . . . . that the living particles in vaccine lymph cannot be distinguished from those present in normal lymph and chyle."—Page 162.

This being true, how does Dr. Beale know that the particles of germinal matter which he finds in vaccine lymph, the lymph of cattle plague or cholera, are not *natural* to the fluid in which they are found; simply secondary products, as all inflammatory and febrile affections are characterized by an extraordinary increase of germinal matter in inflamed foci and in the blood; this being consequent on the specific irritation, of whatever kind, that excites the morbid outbreak? To claim that they are the germs of the disease, is begging the question. Our German pathological teachers have taught us to expect in all such cases a "proliferation of embryonic cells." Dr. Beale's supposed contagious bioplasts, then, may be simply *effects*, and not *causes*, of the morbid conditions with which they are found associated. It would be as difficult to isolate these bioplasts, for purposes of experiment, from the septic elements in which they are entangled, as Prof. Cohn's bacteria, which, in some inconceivable way, he supposes he has strained out of diseased fluids.

My object has been to review the prominent phases of the Germ Theory; to criticize popular theories, rather than propound any of my own. The scientific world is inebriated with speculation; the fogs and mists of error blind honest searchers after true knowledge, and the torchlight of induction shines dimly where clear light is needed. In rejecting the Germ Theory as untenable, we have either to confess our ignorance of the causes of all febrile and inflammatory contagious diseases (and it were better to rest content with ignorance than entertain beliefs that are not true), or, guided by analogy, to accept the alternative that the principle of contagion is a subtle chemical ferment, an organic poison, generated in the body of the diseased individual, derived from other diseased individuals, by infection through wounds, as in cow pox and hydrophobia; by infection by contact, as in gonorrhœa and syphilis; by infection by exhalations in the breath or other secretions, as in the case of measles, scarlet fever, whooping cough, and other infectious fevers.* Assuming the chemical theory of contagium, it will be readily comprehended that it might be as difficult to isolate and obtain for purposes of analysis and experimentation the septic or toxic material from the blood and secretions of the animal or person affected, as it would be to detect and identify morphia, strychnia, or any other powerful organic poison in the blood, secretions, or nervous tissues of a person poisoned by either of these drugs. Accepting the chemical theory, we can understand why the poison should be elaborated by preference in certain tissues, from which, as from certain

* See Williams's Principles of Medicine, p. 88.

local foci of contagion, the disease radiates over the system.* We can, moreover, understand why the specific poison "does not seem to be immediately reproduced in the blood of the person affected; rather a set of changes are set up in the blood, which ultimately lead to the evolution of such a poison in some part or parts of the body, so that, as Mr. Simon says, "bowels, skin, kidney, tonsils are the favorite resorts of the several fever poisons, just as they are the surfaces by which naturally the organic waste of the several tissues is eliminated."

Dr. B. W. Richardson, in the *Medical Times and Gazette* for Nov. 5, 1870, advocates a similar view:† "A person suffering from a communicable disease is poisonous precisely as a *cobra di capello* is poisonous—that is to say, he is producing, by secretion, an organic poison, which, if it comes into contact, in the right way, with a healthy person, will reproduce disease."‡ As for the predisposing causes of these febrile and inflammatory communicable diseases, we may enumerate, first, a lowered vitality from heat, fatigue, intemperance, or other debilitating influences; second, certain not well understood conditions of the atmosphere, as a plus or minus of ozone or electricity, or the presence of noxious gases; third, as pointed out by Dr. Carpenter,§ "the presence in the system of an azotized matter, tending to decomposition, whether arising from a rapid disintegration of the materials of the body, as occurs after child-birth, accidental injuries, surgical operations, excessive fatigue, or extreme privation—or caused by impaired action of the depurating organs of respiration and excretion, or directly introduced in the form of unwholesome food in a decaying state."

Consumption of Horse-flesh in Paris.—The horse-butchers, during the first quarter of 1874, have sold 2,111 horses, mules and asses for food. In 1872, the numbers were 1,275, and in 1870, 980. The same progress is making in the Provinces. The Society for the Propagation of the Sale of Horse-flesh has just decreed a medal to M. Carder, for his mode of preserving horse-flesh. Some of this, which was prepared by him in February, 1871, and examined in April, 1874, was found to have presented every analogy to beef preserved by the best methods.—*L'Union Medicale; Medical Times and Gazette.*

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* Instances are abundant which show that the natural secretions may become poisonous through peculiar depressing influences, as disturbing emotions. The maternal milk has been known to assume noxious and even deadly properties, owing to the power of fear on the lacteal secretion. The bite of infuriated animals, not rabid, has developed symptoms similar to those of rabies.

See this question discussed fully by Dr. Carpenter, in his late work "On the Principles of Mental Physiology."

The opinion above expressed finds an advocate in Youatt. In his valuable work "On the Dog," p. 221, he compares the action of the hydrophobia poison to that of infectious fevers. He says of the rabid virus:—"It has never been analyzed, and it would be a difficult matter to analyze it. . . . . It must be received into a wound. It must come in contact with some tissue or nervous fibre, and lie dormant there for a considerable but uncertain period. . . . . It lies for a time absolutely dormant, ... but at length the tissue on which it has lain begins to render it somewhat sensible and assimilates to itself certain elements. The cicatrix begins to be painful, and inflammation spreads around. The absorbents are called into more powerful action; they begin to attack the virus itself, and a portion of it is taken up and carried into the circulation, and acquires the property of assimilating other secretions to its own nature, or it is determined to one of the secretions only; it alters the character of that secretion, envenoms it, and gives it the power of propagating the disease."

How much like this, the action of the vaccine virus, variola, and other contagious febrile poisons.

† Bastian's Beginnings of Life, vol. ii., Appendix E.

‡ Quoted by Bastian.

§ British and Foreign Medico-Chirurgical Review, January, 1853.

Progress in Medicine.

REPORT ON DISEASES OF THE NERVOUS SYSTEM.

By James J. Putnam, M.D.

Pathology of the Cortex Cerebri.

Since the publication of the highly important experiments upon the localization of centres for muscular movements in the cortex cerebri, made first by Fritsch and Hitzig, of Berlin, afterwards with, in the main, similar results, by Nothnagel, of Berlin, Ferrier, of London, and others (vide this Journal for July 24 and 30, 1873, and April 30, 1874), a number of clinical cases have been reported, in which defined lesions of the cortex produced muscular convulsions, with subsequent partial paralysis, so localized as to strikingly confirm the justice of applying to man, in principle, at least, the results obtained with the brains of animals (*Archiv für Psychiatrie u. Nervenkr.* 1872, Bd. iii. case by Hitzig; *Virchow's Archiv*, Bd. lvi., case by Wernher; *Med. Times and Gaz.*, Nov. 30, 1872, cases by Hughlings Jackson; also *Arch. für Psychiatrie*, Bd. iv., 3 cases by Bernhardt). Among these should be classed a case reported by Bartholow (*Am. Journal of the Med. Sci.*, April, 1874), who, having a patient in whom the dura mater over the upper surface of the brain had been extensively laid bare by an epithelioma of the bone, thrust needles to different depths into the brain, and passed a current of electricity between them, with the effect of causing contraction of the muscles of the neck, with the extensors of the arm and leg, both on the opposite side of the body. An epileptiform attack, limited to the arm, shoulder and neck of the opposite side, occurred, also, after an injury of some severity to a limited region of the cortex.

These experiments and cases, taken in connection with the large number of instances where aphasia has been associated with disease of the convolutions about the fissure of Sylvius,* together with the presumptive evidence furnished by anatomy, would seem unquestionably to teach that the different muscles of the body are represented in certain regions of the cortex cerebri, constituting centres, from the irritation of which the corresponding muscles can be excited to contraction, although, to judge from pathological observation, the arrangement of these cerebral centres may not be, for every individual, precisely the same.

This view has, however, been combatted, especially by Dr. Brown-Séquard,† as has been already stated in this Journal (*loc. cit.*), who brings forward a large number of cases to prove that disease may exist in any part of the brain without causing symptoms at all, or only on the same side of the body with the lesion, and conversely, that disease in almost any part of the brain may produce almost any symptom. From these, and other similar facts, he concludes that the theory which assigns special functions to the different centres in the brain, especially the cortex cerebri, and explains symptoms by the direct irrita-

* For summaries of these cases, vide papers by Lohmeyer, in the Arch. für Klin. Chirurgie, and Menzel, in the Wiener Med. Wochenschr., 1874.

† Vide, among other papers, the Archives of Scientific and Practical Medicine for January, February and March, 1873.

tion or destruction of those centres, is absolutely untenable, and proposes the theory instead, that the apparent lesion acts *indirectly* upon "distant centres," exerting over them an irritating or a paralyzing (inhibitory) influence, just as peripheral lesions are known sometimes to do. In this way, alone, he believes, are symptoms of disease in the cerebral lobes, the cerebellum, and its peduncles produced, and, in part, those of disease of the base of the brain.

Though never to the same extent, this indirect influence of cerebral lesions has already been recognized by many observers,* but it is also widely questioned whether the principle of the possible assumption by one part of the brain of the functions of another part which may have been destroyed, cannot be so extended as to explain many of the anomalous cases referred to, leaving the theory of the *direct* influence of lesions, for which the positive evidence is so strong, otherwise intact.

This principle is well recognized in general pathology, and, in view of the intimate connections existing between different parts of the ganglionic masses of the brain, particularly the cortex cerebri, its influence in cerebral pathology might fairly be looked for, especially if we admit that the nerve-cells, of the cortex for example, are less distinguished from one another by any physiological peculiarities than by their education, i. e., by the excitations which they habitually receive and transmit.

There appears, moreover, to be the objection to Dr. Brown-Séquard's argument, that, while specifically disproving the existence of "centres," even at the base of the brain, he really presupposes their existence somewhere, as, indeed, the occurrence of definite symptoms, such as we observe clinically, whether produced *directly* or *indirectly*, demands, and it seems to be necessary in either case to admit the validity of the principle of vicarious functions in one form or another.

The positive evidence for the existence of centres, in the modified sense, as regards the cortex cerebri, has already been alluded to.

Dr. Hughlings Jackson, whose observations have several times been mentioned in these Reports *(loc. cit.)*, insists on the importance of studying them rather through the careful observation of unilateral convulsions beginning in special muscles, or muscular groups, than by the class of paralyses, for the reason stated, that from absence of paralysis we cannot confidently infer the presence of corresponding centres in the cortex, while from convulsion we can infer their presence and their excitation.

According to his, and others', view of cerebral physiology, we can already say, in general terms, that the whole muscular system of the body is probably represented several times within the central nervous system, in different masses of gray matter, that of the spinal cord, of the cerebral ganglia (except, perhaps, the optic thalamus), of the cerebellum, and of the cortex cerebri, from any one of which it is capable of being excited, entirely or in part, to functional activity. Among these ganglionic masses, it is the cortex cerebri which is so placed as to receive the greatest number and variety of nervous impressions through the channels of the senses, which it also has the power of storing up for future use ; and there also the greatest variety and number of voluntary impulses naturally have their origin, the active vol-

* Vide, for example, Jaccoud, Path. Interne, 4th ed., i. p. 286.

untary impulse (i. e. the nervous impression which excites the nerve-centres in which it has its seat so strongly that through them muscular action is called out) being the resultant of all the impulses, or impressions, present at any given moment in the brain.

The exclusive employment, then, of single muscles, or of a number of muscles in new, or comparatively new, combinations for definite purposes, is, according to this view, a function (speaking physiologically) of the cortex cerebri.

Less highly differentiated, or complicated, i. e., more automatic, movements or even complicated ones, if they have become familiar through repetition, may be called out through the influence of the cerebral ganglia, the cerebellum and the spinal cord. The experiments of Hitzig and Ferrier plainly afford striking support to these views.*

Hitzig, and still more Ferrier, found, moreover, that when the irritation of a definite point of the cortex cerebri, with induction currents, was continued for a certain time, epileptiform convulsions of the muscles on the opposite side of the body could be induced, beginning in the muscles corresponding to the point irritated. It was found also, by both Hitzig and Ferrier, that when any motor centre was cut out, the animals were not paralyzed for the more or less automatic movements of walking or running, but that they would allow the corresponding member to be placed in awkward positions without attempting to correct them, indicating an impairment of muscular sense, although general sensation seemed unimpaired.

Applying these views to pathological cases, we can, according to Hughlings Jackson, assume that localized unilateral convulsions, or convulsions beginning as such, even if they spread afterwards to other parts of the body, are due to irritations *centring* at definite points of the cortex cerebri.†

Such convulsions occur consequent on the nutritive changes due to embolic plugging of arteries, to syphilitic and other tumors, or to localized meningitis, if they cause irritation of the cortex cerebri at certain points (vide *Medical Times and Gazette*, 1873 and 1874, papers by Jackson and Broadbent), and Jackson considers it probable that many cases now classed under the head of epilepsy (a name which he thinks should not be used to designate a collection of symptoms, but a condition of mal-nutrition of nervous centres, which renders them liable to periodic outbreaks of excitement, and which may affect many different parts of the brain) are due to lesions there, although these lesions may easily escape notice, causing, as they do, irritation only, not destruction, of the parts involved. Convulsions of this kind may be followed by more or less temporary, incomplete paralysis, or loss of acquired dexterity, of the parts attacked, of which temporary aphasia is a type. (Speech, unless simply ejaculatory, occurs when the excitations, of which the subjective side is thought, excite the motor centres for the organs of articulation, &c., so strongly that muscular contraction results, and in the conception of words *without* their utter-

* The criticism made by Brown-Séquard and others that, in these experiments, it is the irritation, not of the cortex, but of ganglia lying beneath it, which causes the movements, is discussed in this JOURNAL for July 16, 1874.

† Compare Reports on Mental Diseases in this JOURNAL for July 31, 1873. Also, West Riding Asylum Reports, article Epilepsy. Hughlings Jackson believes, on theoretical grounds, that the spreading takes place through the indirect influence of the arterial districts.

ance, the same centres are implicated, as Hughlings Jackson believes, but less strongly excited.)

Such temporary paralysis may, perhaps, be due to exhaustion of the nervous centres, consequent on their over-action.

When the paralysis is more extensive and complete, as in most cases of cerebral hemiplegia from hæmorrhage, the corpus striatum, or motor tract connected with it, is generally the seat of the lesion, and the paralysis is not necessarily preceded by convulsion, as is almost invariably the case when the cortex is affected.

Shock and Cerebral Concussion.

Our knowledge of these somewhat obscure affections has received some valuable additions at the hands of the experimental physiologist, within the past few years, as is clearly shown in some excellent papers by Prof. Fischer, of Breslau,* and Brunton, of London.†

The characteristic *symptoms* of *shock* are stated as:—pallor and coldness of the skin, weakness and irregularity of the pulse, oppressed and sighing character of the respiration, nausea and vomiting, and apathy of mind without entire loss of consciousness, in brief, a cholera-like prostration; its *causes* as: painful impressions on the sensitive nerves (as in large burns), injuries to bones, and, *above all, injuries to the abdominal viscera* and the genitals.

Besides this form there is another, called by Travers "prostration with excitement," of which we will only say here that, according to Fischer, it is generally secondary to the form described.

Shock has been pathologically defined by Savory as "the paralyzing influence of a sudden and violent injury to nerves on the activity of the heart." According to Brunton, this probably occurs in many cases at the outset at least, but the important agency, to which especially the continuance of the symptoms is due, is believed to be *reflex paralysis of the vascular system of the whole body, but particularly of the abdominal cavity,* due to the inhibitory influence which the injury exerts upon the vaso-motor centres, which lie mainly in the medulla oblongata.

That such a reflex paralysis is physiologically possible is an acknowledged fact, and the experiments of v. Bezold and Bever, and others, have shown also that the vascular, especially the venous, system of the abdomen, supplied by the splanchnic nerves, may dilate, when those nerves are cut, so much as to contain nearly all the blood of the body, which stagnates there as in a reservoir. It is especially upon the experiments of Goltz, now of Strasburg, however, that these pathological views are based, who found that a number of light, successive blows upon the abdomen of a frog‡ caused a temporary standstill of the heart; and, further, that after it had begun again to beat, it received and sent out but a small quantity of blood, indeed none at all if the frog was held upright, while examination showed that the missing blood had collected, as described, in the veins of the abdomen.

Goltz at first believed that the paralysis affected solely the vessels of the irritated part, the abdomen, but it was found to be universal, and producible, moreover, by a jar of the whole body.

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* Volkmann's Sammlung Klinische Vorträge, Nos. 10 and 27.

† Practitioner, October, 1873.

‡ Brown-Séquard reports that he had made similar observations upon other animals still earlier.—Reporter.

Through this rapid abstraction of blood, and consequent failure of the circulation, it is claimed that the pallor of the skin, rapid fall of temperature of the body and cerebral symptoms are readily explained. When recovery takes place, it is rather gradual, since the veins contract again but slowly, more slowly than the small arteries; and this, as Brunton believes, gives us a suggestion as to the pathology of *fainting* (syncope), of which the symptoms strongly resemble those of shock.

In the treatment of shock, there are two therapeutical indications: to cause the vessels to contract, and to stimulate the heart's action, besides, of course, keeping up the temperature. Stimulants, ammonia held to the nose, excitation of the skin, are all agents recognized experimentally and clinically, as useful for these ends, and Brunton recommends further, on theoretical grounds, the giving of digitalis in large doses, as has, he says, indeed, been done by Wilks* (half a drachm of the tincture every hour for seven doses), with excellent results, in one case where other means had failed.

The pathology of *cerebral concussion* is believed by Fischer, reasoning by exclusion and analogy, and from the results of autopsies, to be analogous to that of shock, except that the reflex paralysis (in an uncomplicated case, which is a rarity) affects the vessels of the brain alone. He points out that dilatation of the vessels so interferes with the circulation that the tissues are no longer properly nourished, and are virtually in a state of anæmia, which accounts for the coma, and, acting on the heart through the vagus nerve (for whose nucleus in the medulla oblongata the absence of well-oxydized blood is known to constitute an irritant), also for the slow, irregular pulse—the two characteristic symptoms of that state. Shock and concussion are often followed by symptoms which belong, in general, rather to the direct injuries to the central organs or their membranes which so often occur, but there is some reason to believe that the periodic outbreak of nervous symptoms which are often observed in the sequel (such as epilepsy), may sometimes be the indication of a morbid habit which was instituted in the original attack.

At a recent meeting of the Obstetrical Society of Edinburgh, Dr. Cuthbert showed a rare and interesting case of strangulation in utero. The mother of several healthy children miscarried for the second time March 29, 1874. Her last menstruation was on Dec 17, 1873; consequently, the fœtus was about eight and a half months old. It was perfectly healthy and well developed. No reason could be assigned by the patient for the accident. On examining the fœtus, the funis was found coiled twice round the neck, and under the coiling it was tightly tied in a single knot. The part of the funis from the umbilicus to the neck was completely on the stretch, and its whole length from the insertion in the placenta to the umbilicus was about seventeen inches, or two and one half times the length of the fœtus. The part continuous with the fœtal circulation was round, and of a natural size; but the other part, viz., from the neck of the fœtus to the placenta, was small, and cord-like.

There can be no doubt that the death of the fœtus, and, consequently, the miscarriage, was caused by the tying and coiling of the funis round the neck. Probably, it was also hastened, as the fœtus grew larger, by putting the smaller part of the cord on the stretch, which would tend to tighten the knot and coils; at the same time it would also stop the circulation.—*Edinburgh Medical Journal*, June, 1874.

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* Medical Times and Gazette, Jan. 16, 1864.

Reports of Medical Societies.

American Otological Society.

The seventh annual meeting of the Society was opened at the Aquidneck House, Newport, R. I., on Wednesday, July 15, 1874, at 10.45 o'clock, A.M., the Vice President, Dr. C. J. Blake, in the chair. Thirteen members were present, representing New York, Brooklyn, Philadelphia, Boston, Rochester, Detroit, St. Louis and Pittsburg.

The chair appointed as the Executive Committee, Drs. H. D. Noyes, O. D. Pomeroy and John Green.

The Treasurer's report was read and was referred to Dr. Buck as the Auditing Committee, who reported it correct, and it was accepted.

The nomination of Dr. Ezra Dyer, of Pittsburg, was reported by the Executive Committee, and, on ballot, he was elected. The same committee reported the following bulletin of papers, which were read in order, and referred to the Publishing Committee.

1. Report on Otology. Drs. Burnett and Blake.
2. Case of Otitis Media, with Sinus opening into the Pharynx. Dr. A. Mathewson.
3. Aural Polypus having a Cartilaginous and Osseous Base. Dr. O. D. Pomeroy.
4. Ultimate Forms of Granulation Tissue in the Ear. Dr. A. H. Buck.
5. Perforations of the Membrane of Shrapnel. Dr. C. J. Blake.
6. Chronic Purulent Inflammation of the Tympanum, with Perforation of the Membrana Flaccida. Dr. C. H. Burnett.
7. Case of Irritation of the Chorda Tympani; Paralysis of Facial; Polypoid Growths on the Membrana Tympani. Dr. H. D. Noyes.
8. Case of Chronic Suppurative Inflammation of the Middle Ear, terminating fatally from extension of the Inflammation to the Middle Ear and the Brain; occurring in the practice of Dr. Agnew. Dr. David Webster.
9. Medicated Bougies. Dr. A. H. Buck.
10. Cases illustrating Tenotomy of the Tendon of the Tensor Tympani. Dr. O. D. Pomeroy.
11. The Mechanical Value of Weight in the Ossicula. Dr. C. J. Blake.
12. Some Neuralgias in and about the Ear. Dr. J. Orne Green.
13. A case of Ménière's Disease. Dr. C. H. Burnett.

The thanks of the Society were given to Drs. Burnett and Blake for the very satisfactory manner in which they had performed their duties as the Committee on Otology, and it was voted that one hundred extra copies of their report be furnished these gentlemen.

After the reading of the second paper, at 1.45 o'clock, the Society adjourned till 4 o'clock.

Second Session.—The Society was called to order at 4.15 o'clock, and the minutes of the first session were read and approved.

The nomination of Dr. C. S. Merrill, of Albany, was received from the committee, and, on ballot, he was elected.

The reading of the papers was then concluded.

Dr. Rider announced the death of Dr. J. W. Lawton, of Syracuse, and gave a short account of his life and last illness.

The Publishing Committee were directed to revise the constitution and by-laws, and submit their report at the next meeting.

The following officers, nominated by the Executive Committee, were elected for the ensuing year:—

President.—D. B. St. J. Roosa, M.D.

Vice President.—Clarence J. Blake, M.D.

Secretary.—J. Orne Green, M.D.

Committee on Otology.—Clarence J. Blake, M.D., A. Mathewson, M.D.

Publishing Committee.—J. Orne Green, M.D., J. S. Prout, M.D., H. G. Newton, M.D.

Bibliographical Notices.

Legal Responsibility in Old Age. By Geo. M. Beard, M.D. New York, 1874. Pp. 42. 8vo.

This pamphlet is a reprint of a paper read last year before the Medico-Legal Society of New York. It is a research into the relation of age to work, and is not a treatise on senile dementia. The author states that he has noted the age at which great men have done the original work on which their fame rests, and has prepared a table as the result of his investigations. The "golden decade" he places between 30 and 40, from which time mental power declines. Seventy per cent. of the work of the world is done, he thinks, before 45. The average age of those embraced in this list is sixty-six. The quantity of work done by the aged is greater, but in quality and originality the advantage is on the side of youth.

The moral faculties are subject, he says to the same law, and decline in old age, from over-exercise of the lower at the expense of the higher nature through life; from diseases of the brain, or of the body affecting the brain, and because of the intellectual decline.

The idea that the mind declines later than the body has been generally accepted because of our natural reverence for the aged; because reputation is not exactly coincident with the work it rests on, but may even be posthumous; and from the false teaching of works of art which represent distinguished men generally in advanced life.

The paper concludes with some remarks on the frequency of crimes in the aged, on their occasional incapacity as testators, and on the best method of modifying the present system of conducting trials where insanity is in question.

There is a certain incoherence between the parts of this paper which suggests the adaptation of an old theme to the purposes of an address. This is no fault in itself, but when the title and the audience are considered, the want of vital connection between the literary, scientific and legal bearings of the subject are more apparent. The setting forth in the form of an essay the not entirely novel fact that the mental powers are most active between the ages of 30 and 45, the period known as the "prime of life," and supporting it by illustrations from history and biography, hardly warrants the writer's claim "*to the scientific discovery of the law of the Relation of Age to Work.*" He, in fact, admits that in his general conclusions he has been anticipated by many illustrious thinkers.

Granting the law, however discovered, the author does not very clearly show its bearing on the legal responsibility of the aged. The disproportionate decline of different faculties, the irregular decay of mind, which produces correspondingly limited responsibility and capacity, belongs to the consideration of senile dementia, which is an exceptional and not a general consideration. It is hardly to be expected that the Law, so slow to discover impaired responsibility in the dementia of old age, will take cognizance of nicer gradations, or provide a descending scale of responsibility for the closing decades of life.

This paper is suggestive, but Dr. Beard need not rest *his* claim for original work on so slight a basis. T. W. F.

BOOKS AND PAMPHLETS RECEIVED.

On the Torsion of Blood-vessels. By Robert McDonnell, M.D., F.R.S., one of the Surgeons of Dr. Stevens's Hospital, Dublin. Reprinted from Archives of Scientific and Practical Medicine. 1874.

On the Value of High Powers in the Diagnosis of Blood-Stains. By J. G. Richardson, M.D. Extracted from the American Journal of Medical Sciences.

Transactions of the Kentucky State Medical Society, 1874, Nineteenth Annual Session.

Census of the City of Providence, May 1, 1874. By Edwin M. Snow, M.D., Superintendent.

Annual Reports of the Trustees, Treasurer, &c., of the New Hampshire Asylum for the Insane to the New Hampshire Legislature, June Session, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, July 30, 1874.

The Third Annual Report of the Board of Health of the city of New York contains a most thorough and interesting history of the equine influenza, which invaded this country during the year 1872–3, originating in Toronto, and spreading rapidly throughout the United States, crossing the Mexican border to Central America, and transferred by means of steam transports to Cuba. The sub-division of this report relating to the origin and mode of progress of the epizoötic was entrusted to Dr. A. B. Judson, who has collected and put upon record certain important data, indicating the laws which appeared to govern its progress and mode of conveyance; and to this portion of the report we desire to call the especial attention of our readers. Dr. Judson arranges the conclusions to which, as the result of his investigations, he has been led, in the form of three propositions, which are illustrated by well executed maps. His first proposition is that "*epizoötic influenza does not spread by virtue of any of the recognized atmospheric conditions of cold, heat, humidity, season, climate or altitude.*"

The correctness of this proposition is demonstrated by the fact that the disease advanced with equal rapidity in the north, during the cold months of winter, and in Central America during the heat of July; in the dry atmosphere of the inland country, and the moisture of the seaboard; in the high plateaux of Mexico, and the low, swampy districts of Louisiana.

Second. "*Epizoötic influenza does not spread solely by virtue of unrecognized atmospheric conditions.*" This proposition is logically proved by tracing the progress of the disease upon maps, upon which are drawn arcs and radii, by reference to which it is shown that the disease appeared at points equally distant from Toronto at totally different dates, whereas it broke out simultaneously in different cities hundreds of miles distant from each other, all lying in the same direction from Toronto. Then, too, the irregularities in the breaking out of the malady at different localities are so numerous and striking that it would prove absolutely impossible to frame or even imagine any atmospheric law with which these abnormal appearances would not conflict, unless we are able to believe in the existence of unrecognized atmospheric conditions, whose phenomena are totally different from the phenomena of the recognized atmospheric conditions. Dr. Judson considers himself, therefore, justified in maintaining that while it is proved that the virus of this malady is *not* capable of being transferred

through the medium of the air for short distances, and over limited areas, on the contrary it *is* proved that the spread of the disease is not to be ascribed solely or chiefly to unrecognized atmospheric conditions. Furthermore, the immunity of certain localities could not be explained upon any atmospheric hypothesis.

The third proposition is, "*Epizoötic influenza spreads by means of its communicability.*" The proof of this proposition is also of a logical character, but is so abundant and forcible, as to be absolutely convincing. This proof is included under three heads, which may be briefly stated as follows:—

a. The epizoötic penetrated every place on this continent, which was in communication, by means of horses or mules, with localities in which the disease existed. So far as concerns Cuba, at the time the disease appeared in that island, horses were being transported into Havana from America.

b. The few places that were exempt from the disease were peculiarly situated, and, by reason of their situation, the importation of horses or mules was either impossible or improbable. To cite an example, during the prevalence of the malady, intercourse with Prince Edward Island was interrupted by the ice, with which, during the winter months, it is hemmed in, while in Vancouver's Island a quarantine was instituted against horses and mules. *Both of these islands were exempt.* Again, if we refer to the three or four towns on the continent in which the disease did not appear, such as La Paz, in Lower California, or Minatitlan, Tabasco and Merida, in Mexico, it will invariably be found that these places were all peculiarly situated, either at the extremity of a peninsula, or else in some remote and inaccessible region, where they were practically cut off from direct communication with towns in which the disease prevailed.

c. Additional logical proof of this proposition is derived from the fact that the rate of progress of the disease seemed to depend upon the extent of population of the district, and the amount and facility of commercial intercourse. In the thickly populated sections of the Eastern States, and along the line of the Pacific Railway, its advance was rapid, whereas in the more thinly settled regions of the West its progress was proportionately slow. At one point, the Sierra Nevada Mountains, which, during the winter months, are impassable, acted as an insurmountable barrier to the course of the epizoötic, and it was only able to find its way to California by following the circuitous route of the mining districts lying between Carson City and Inyo.

The medical profession are under great obligations to Dr. Judson for the indefatigable zeal manifested by him in investigating the varied phenomena characterizing this epizoötic. The theories which he puts forth respecting its mode of transference will be found to conform to

the canons of Bacon's philosophy, and will bear a close comparison with the recorded phenomena. It is by philosophical investigations, of which this forms a felicitous example, that we are slowly acquiring some knowledge of those mysterious poisons by the agency of which the spread of pestilential diseases is effected; and having at length been enabled to recognize the peculiar conditions required by each specific virus to facilitate its development, the next advance in the evolution of medical science consists in the application of these distinctions to practice, by elucidating some general principles, by the knowledge of which some of the predisposing influences of this class of diseases may be removed, or, at least, seriously modified.

HOBSON'S CHOICE.—*The Lancet* of June 20, 1874, refers in the following witty way to the sanitary condition of Cambridge:—

"A ludicrous discussion took place last week in the Town Council at Cambridge. The late Mayor had presented to the Guildhall a portrait of Hobson, the celebrated letter carrier, who arranged the posts between Cambridge and London during the latter part of the reign of Charles II. Old Hobson was an original character; in vain his customers endeavored to make their own selection of beasts to carry them on their journey, the horse whose turn it was to go out was invariably harnessed; this horse or none, the stout old postmaster offered, whence 'Hobson's choice.' Now Hobson was a sanitarian, and had a great idea of keeping the town sweet and clean. For this purpose, he bequeathed certain moneys to provide for a flow of fresh water to run perpetually on both sides of the streets of Cambridge. Drains were not invented in those days, or, doubtless, he would have employed the water for adequately flushing them. The present Mayor has ordered the portrait of this worthy townsman to be removed from the Guildhall. Of course, certain members of the Council are highly indignant, and attack the conduct of the Mayor. This gentleman defends himself on purely æsthetic grounds, and declares the picture, as a work of art, is not worthy the Guildhall. But we do not hold this to be the true motive for the removal. Has not the face of this ancient sanitarian of late assumed a stern, a reproachful gaze, so that the Mayor does not care to have any more private interviews with it? If this be the case, Hobson's portrait will be stowed away in the lumber-room, without giving him a choice in the matter, till Cambridge is once more clean. Meantime, the townspeople will be deprived of the likeness of their most famous citizen."

A CASE of rupture of the vagina with protrusion of the intestine has been the subject of a coroner's inquest in England, lately. Mr. Peacock, who had charge of the case, had used forceps, although it appears that the rupture probably occurred before the use of the instruments. The intestines protruded, and were cut off by Mr. Peacock. Dr. Barnes, who gave evidence in favor of Mr. Peacock, although he allowed that he should not have removed the intestines in this case, nevertheless thought that their removal did not arise from gross ignorance, want of skill or inattention. That he could conceive a case in which their removal might be the only thing that could be done, and might prolong life for a few minutes.

Under these circumstances, the jury, after a short deliberation, returned the following verdict: "That the deceased died from the effect of an escape of intestine consequent upon spontaneous rupture of the vagina during her confinement, adding their opinion that no blame was attachable to Mr. Peacock.

Correspondence.

The Recussitation of Persons apparently Drowned.

Messrs. Editors. — The "Directions for Restoring Persons apparently Drowned," lately reprinted in the daily papers, must have attracted the attention of others as they did that of your correspondent C. E. B. Had it not been for a disinclination to act the ungracious part of criticizing so philanthropic an association as the Massachusetts Humane Society, I also should have sent my comments to the *Daily Advertiser's* editorial waste-basket.

It may well be questioned whether any advantage results from attempts at this sort of instruction; but, as the subject has been opened, I venture to offer for dissection the accompanying "Directions," which I was tempted to print and post at a sea-side village, three years ago, just after a death by drowning had occurred, when the general ignorance of what to do in such an accident had especially impressed itself on my mind.

My idea was to frame a set of Rules which an average intelligence might comprehend; not to be appealed to at the moment of necessity, but which, by being conspicuously posted, in the depot, the store, or the post-office, should, by repeated perusal, penetrate the memory and understanding of the reader.

The "Marshall Hall" and the "Sylvester" methods cannot be explained without diagrams, and are not, even then, understood well enough to be intelligently practised except under the guidance of an expert. They are, I am informed, omitted from the latest "Directions of the British Royal Humane Society."

Perhaps the Rules which follow would better serve their purpose if all but numbers I., V., VI. and IX. were omitted. R. M. H.

DIRECTIONS FOR RESTORING PERSONS APPARENTLY DEAD FROM DROWNING.

I. Lose no time. Carry out these directions on the spot.

II. Remove the froth and mucus from the mouth and nostrils.

III. Hold the body, *for a few seconds only*, with the head hanging down, so that the water may run out of the lungs and windpipe.

IV. Loosen all tight articles of clothing about the neck and chest.

V. See that the tongue is pulled forward if it falls back into the throat. By taking hold of it with a handkerchief it will not slip.

VI. If the breathing has ceased, or nearly so, it must be stimulated by pressure of the chest with the hands, in imitation of the natural breathing; forcibly expelling the air from the lungs and allowing it to re-enter and expand them by the elasticity of the ribs. Remember that *this is the most important step of all.*

To do it readily, lay the person on his back, with a cushion, pillow, or some firm substance, under the shoulders; then press with the flat of the hands *over the lower part of the breast bone and the upper part of the abdomen*, keeping up a regular repetition and relaxation of pressure twenty or thirty times a minute. A pressure of thirty pounds may be applied with safety to a grown person.

VII. Rub the limbs with the hands, or with dry cloths, constantly, to aid the circulation and keep the body warm.

VIII. As soon as the person can swallow, give a table-spoonful of spirits in hot water, or some warm tea or coffee.

IX. Work deliberately. Do not give up too quickly. Success has rewarded the efforts of *hours*.

The Medical Education of Women.

Messrs. Editors,—I have just received, from my friend Mr. Lawson Tait, of Birmingham, England, a paper on the "Medical Education of Women," from which I extract several paragraphs giving a trustworthy explanation of the scandal that has been promulgated about some of the female medical students in the University of Zürich. This account clears up the

apparent discrepancy between current rumor and the protestations of Prof. Frey and others. The veritable students of medicine seem to be exonerated from all participation in the objectionable actions which evoked the Russian decree.

I trust you will allow me, by publishing this recital, to make *amende honorable* to the fair sex for crediting and maintaining, in a former communication, charges which now prove to be unmerited.

I am, very truly yours, JAMES R. CHADWICK, M.D.

123 *Boylston Street, July* 17, 1874.

"Zurich, like all free Swiss and English towns, is liable at any time to be the centre of some body of political refugees and conspirators, and for some months anterior to the invasion of the town by the lady students, a colony of Russians had established themselves there. What their object was I do not know, but the proximity of Rappershcwyl schloss, the only property of the Polish nation, or rather of the Polish exiles, may account for their selection of Zurich as a resting place. Their numbers, at least, grew very rapidly, and after the English and German ladies, and a few Russian women who really were students, had become fairly installed at the University, they were reinforced by a number of young men and women from Russia who enrolled themselves as students of medicine, but who excited the ill-will of both professors and students by rendering it very evident that study was not their intention. So much were the earnest students affected by them that they instituted proceedings to have them, especially the women, removed, but desisted on the appeal of Prof. Meyer to the effect that if the University were to be closed to the women they did not like, it must also be closed to those whom they respected.

"The attention of the Russian ambassador at Berne seems to have been drawn to the Russian Colony at Zurich, and he made some representations to his government, which were brought to a crisis by one of the female pseudo-students being caught on the Russian frontier with some treasonable documents in her possession. The ukase was accordingly issued, and was directed only against the women, because there was no evidence against the men, and no ostensible reason for interfering with them, but also because the authorities at St. Petersburg well knew that where the women went the men would follow, and the result was as was expected, for Zurich was cleared of a lot of people whose presence neither the University authorities, nor the students, nor the people of the town at all approved of. These Russians, it is true, committed no offence that could be laid hold of, but the women were loud in their manner, smoked in the streets, and, to use the quaint words of one of the professors, 'they lived with their compatriots in houses which had too few rooms.' There are still left at Zurich six Russian ladies who are studying medicine earnestly, and against whose conduct and character not a word has been said; but the general effect of the ukase has been very disastrous on all, for female medical students have thereby been branded with an undefined charge of immorality, based on a substratum of truth, and of which it is not easy for them or for any one to disabuse the public mind. Of the women who were driven from Zurich by the ukase, a small number now study at Berne, two or three tried Leipzic, but failed to pass the matriculation examination which is necessary for entrance into that University, and some are in Paris."

Obituary.

AT a recent meeting of the Hampshire District Medical Society, tributes of respect were paid to deceased members: Drs. Alonzo Lewis, of Hatfield, who died of tubercular disease, the result of continued hard work in the profession, and E. M. Johnson, a victim of the Mill River disaster.

Medical Miscellany.

A PENALTY of £20 and costs (amounting to £5. 1s. 6d.) has been recovered through the Halifax County Court from a person named Anderson, a homœopathic chemist in Halifax, for illegally practising as an apothecary.—*The Lancet.*

THE LONDON HOSPITAL SUNDAY FUND.—The latest accounts state that the sum received thus far at the Mansion-house exceeds the entire result of last year's appeal, about £28,000 having been paid in. A much larger sum, however, was expected this, the second, year of the movement.

THE celebrated Mr. Thomas Banting left £20,000 for building a convalescent home at Worthing, to be called the Banting Memorial. When are we to have convalescent homes connected with our Boston Hospitals?

FRECKLES.—It is said that powdered nitre moistened with water, applied to the face night and morning, will soon remove freckles.—*Practitioner and Druggist*, May, 1874.

DR. U. V. WILLIAMS, of Bridgeport, Ky., reports having recently attended a colored girl, aged 11 years 3 months, who gave birth to a male child, well-formed, and weighing eight pounds. Mother and child did well.—*The American Medical Weekly.*

PROF. SCHIFF, of Florence, "has demonstrated the superiority of ether to chloroform, on the ground of safety to human life . . . that ether is unattended by any hurtful result, unless through gross carelessness . . . is so convinced of this as to affirm that every case of death resulting from the application of ether is wholly due to the incompetency of the physician by whom it may have been administered."

THE BRITISH MEDICAL ASSOCIATION will hold its annual meeting at Norwich on August 11th, 12th, 13th and 14th, the president being still Sir Wm. Fergusson, and the president elect Edward Copeland, M.D., Senior Physician to the Norfolk and Norwich Hospital. An address in medicine will be given by J. Russell Reynolds, M.D., Physician to the University College Hospital, and an address in surgery will be given by W. Cadge, Esq., Surgeon to the Norfolk and Norwich Hospital. An address will also be given by James Matthews Duncan, M.D., Lecturer on Midwifery and the Diseases of Women and Children in the School of Medicine, Edinburgh.

CYSTIC TUMOR ATTACHED TO THE KIDNEY.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, a case of the above, simulating ovarian disease, was reported. The kidney was extirpated, and the patient recovered. Mrs. S., 49, mill-worker, widow, noticed, eighteen months ago, a swelling in the lower iliac fossa, which made rapid progress. When admitted to the hospital, it was freely movable, and larger than a man's head. Three fluctuating points, which apparently communicated, were felt. Uterus was high in the pelvis. Ovariotomy was determined on. The peritoneum being opened, the cyst was exposed. It was tapped by a large trocar, but no fluid came. It was found to be of the consistence of porridge; the cyst was opened and two pints of stuff cleared out. Ovaries were found perfectly healthy, and in normal situation. Tumor was a cystic one, involving left kidney, which was removed after adhesions to a portion of bowel and omentum were broken up, and vessels and arteries tied. The patient made a tedious, but complete recovery, during which she passed about forty ounces, daily, of healthy, non-albuminous urine. It was remarked that the diagnosis was evidently an erroneous one. The tumor had grown in a very peculiar way, covering the adherent bowels, which were behind the tumor, instead of, as is usual in such cases, in front of the kidney.—*Edinburgh Medical Journal.*

Dr. E. S. Gaillard, who for many years has edited *The Richmond and Louisville Medical Journal*, has lately issued a weekly journal entitled *The American Medical Weekly.* "It will," the editor says, "be an independent medical journal, devoted not only to the medical but professional interests of American physicians, and to the protection and development of those interests which are justly confided to their charge." We wish the enterprising editor success.

Prof. Hughes Bennett, owing to a continuance of ill health, has resigned the chair of the Institutes of Medicine, which he has held now for twenty-six years. Already there are several candidates in the field. Among the names mentioned are Dr. John Cleland, Professor of Anatomy in Queen's College, Galway; Dr. J. B. Pettigrew, Pathologist to the Edinburgh Infirmary; Dr. J. G. McKendrick, former assistant to Dr. Bennett and others.

NOTES AND QUERIES.

"American Modesty."

Under the above title, the *London Medical Times and Gazette*, of July 11th, somewhat sarcastically says:—"The following richly modest remarks we extract from the seventh report of St. John's Hospital, Lowell, Massachusetts: 'There is this remarkable fact, that scarcely a patient enters the hospital but what improves day by day, seldom if ever getting any relapse, whereas in private practice [such] patients very frequently get worse by taking cold, by improper diet, by overdosing, or some other neglect or imprudence. This hospital affords a grand opportunity to test the merits of good nursing and the application in sickness of sanitary laws; the effect of these agencies may be seen immediately, and in many cases, seemingly to do the *cure*, with but little medicine.'"

The Report is treating of a certain class of inhabitants, numerous in every manufacturing place, especially so in Lowell, our great city of spindles. But general as the quoted remark may appear, dissevered of its qualifying clauses, it nevertheless contains a truth too often lost sight of or ignored here and in Great Britain. Too long have drugs been considered *the essential* in the treatment of the sick. We, Americans, have been generations in learning that the polypharmacy introduced from Old England by our forefathers has been, and still continues to be, one of the greatest obstacles to the advancement of medical science, and the just appreciation of the profession by the people. In the name of humanity, Brother Bull, avail yourself of every opportunity to witness disease in its natural course, *cured* without drugs, and refrain from sneering at honest confessions of their secondary importance. Thus may you find, perhaps, that your philosophy, though dreamy, is not all-comprehending.

Massachusettensis.

Died,—In Lawrence, July 21st, Dr. Edmund Seyffarth.—At Hillsdale, Ill., July 16th, Calvin P. Fiske, M.D., formerly of Fiskdale, Mass., 68 years.

Mortality in Massachusetts.—*Deaths in sixteen Cities for the week ending July* 18, 1874.

Boston, 132; Worcester, 12; Lowell, 22; Milford, 3; Chelsea, 5; Cambridge, 22; Salem, 8; Lawrence, 14; Springfield, 17; Gloucester, 8; Fitchburg, 3; Newburyport, 3; Somerville, 4; Fall River, 19; Haverhill, 4; Holyoke, 14. Total, 290.

Prevalent Diseases.—Consumption, 49; cholera infantum, 32; pneumonia, 14.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

Deaths in Boston for the week ending Saturday, July 25th, 157. Males, 85; females, 72. Accident, 4; apoplexy, 1; inflammation of bowels, 2; bronchitis, 2; inflammation of the brain, 1; congestion of the brain, 4; disease of the brain, 4; cancer, 3; cholera infantum, 32; cholera morbus, 1; consumption, 23; convulsions, 3; croup, 1; cyanosis, 1; debility, 2; diarrhœa, 4; dropsy, 1; dropsy of the brain, 2; drowned, 3; dysentery, 1; diphtheria, 1; "fever," 1; scarlet fever, 2; typhoid fever, 7; disease of the heart, 5; intemperance, 1; jaundice, 1; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 4; inflammation of the lungs, 7; laryngitis, 1; marasmus, 7; measles, 1; old age, 4; paralysis, 1; pleurisy, 1; premature birth, 1; peritonitis, 1; pyæmia, 1; puerperal disease, 2; rheumatism, 1; suicide, 1; disease of the stomach, 1; thrush, 1; tetanus, 1; whooping cough, 2.

Under 5 years of age, 79; between 5 and 20 years, 11; between 20 and 40 years, 29; between 40 and 60 years, 19; over 60 years, 19. Born in the United States, 107; Ireland, 36; other places, 14.

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Original Communications.

A CASE OF FIBRO-CYSTIC DISEASE OF THE UTERUS.

By GEORGE HOLMES BIXBY, M.D., Boston.

Surgeon to St. Elizabeth's Hospital for Women.

IN August, 1873, I was consulted by Mrs. M. for an enlargement of the abdomen. She was forty-eight years old, a native of Maine. There was no evidence of hereditary disease in her history. Menstruation first appeared at fifteen, and was normal. In her seventeenth year, while at school away from home, the menses appeared vicariously from the Schneiderian membrane. On her return home, the catamenia resumed their usual regularity *per vias naturales*. In her nineteenth year, while residing at the seashore, the menses were again absent several months. There was no vicarious discharge, but her health suffered materially. She was advised to leave the seashore, and did so, with a decided benefit to her health, and a normal return of menstruation. She married at twenty, and gave birth three times with normal labors; the last, twenty-three years before. In the latter part of 1863, she suffered ten weeks from metrorrhagia, which ceased spontaneously. During the year of 1867, her health failed rapidly. On one occasion, while engaged sewing, she felt suddenly faint, and swooned. During this peculiar and unaccountable attack, the jaws were fixed, muscles generally rigid, and there was an entire loss of consciousness, from which she was fully restored in the course of an hour. During the convalescence, her family physician, Dr. Edmund Russell, of Lewiston, Maine, discovered a firm, regular tumor, the size of a hen's egg, at the right and very near the uterus. Ever after this time, she was confined most of the time to the bed and lounge, unable to stand, as she stated, on account of the severe, dragging pain in the vicinity of the liver. From 1867, the date of the discovery of the tumor, until 1870, the growth steadily increased in size. Early in 1870, she suffered again from metrorrhagia of thirty-three days' duration. At that time, the abdomen had attained the size of pregnancy at four and a half months, and the tumor was plainly to be felt at the right of the uterus. It appears, with the exceptions above mentioned, that the catamenia appeared every four weeks, but were always profuse until latterly, when they were scanty. Their last appearance was about two months before I saw her.

Her condition when I first saw her was as follows: On inspection, the patient was of full stature, of fair, ultimate nutrition, dark complexion, mammæ atrophied, the abdomen of a peculiar, round, regular form, the size of pregnancy at the seventh month. On palpation, the abdomen measured thirty-three inches in circumference; the tumor was

smooth and firm on all sides, and admitted of but slight motion in any direction. On the left of the median line, immediately above the pubes, there was felt, on deep pressure, a well defined, firm, elongated body, closely connected with the main tumor. Arising from below the pubes, it extended upward to the left at least three inches above the pubes. The abdomen was covered with a thick layer of adipose tissue, evidently free from the surface of the tumor. Percussion elicited dulness in all parts of the abdomen. Anteriorly, clearness in both flanks, also evidences of deep-seated fluctuation, rendered indistinct by the thickness both of the abdominal walls and those of the tumor. On auscultation, the pulsations of the aorta were distinctly audible over the central portion of the mass. Vaginal exploration revealed vagina unusually long, evidently put upon stretch superiorly by what, on exploring farther, proved to be the uterus crowded up behind the pubes, and with great difficulty reached with the index finger. By the sound, which is introduced only after repeated attempts, I found the organ fixed and inclined to the left, its cavity measuring about three inches, and by bimanual palpation, namely, the sound in the cavity, and a hand upon the tumor above the pubes, that the latter was intimately connected with the uterus. With the use of a needle of the aspirator, the instrument passes through a thick layer of fat and muscle, thence through a dense, resistant mass, and, finally, into a cavity. There followed a thin, amber-colored serum, which instantly gelatinized on exposure to the air, and, in its congealed state, resembled calf's-foot jelly. Diagnosis reserved.

December 9, 1873.—The patient informed me of her arrival at East Boston, having travelled two hundred miles. The journey was well borne, and she soon recovered from the fatigue. Since August, the date of my first acquaintance with the patient, the abdomen had increased four inches in circumference. Two weeks later, I removed, with an aspirator, from the right side of the tumor, twelve ounces of fluid, of the same nature, consistence and color as that taken on a former occasion. On standing, a fibrinous clot was deposited, which occupied two-thirds the capacity of the vessel which contained it. The removal of the fluid afforded decided relief, and the secretions were very much increased immediately after. Thinking that a more complete evacuation of the fluid might give still greater relief, and facilitate the examination, I determined to tap again at no distant day.

Soon after this, Drs. Wheeler, of Chelsea, and Chadwick, of Boston, saw the patient with me. Dr. Wheeler expressed no opinion. Dr. Chadwick was disposed to consider it ovarian. Three weeks later, with Dr. Chadwick's assistance, I attempted to evacuate the fluid by means of Potain aspirator. The instrument not being quite in order, but little fluid was removed.

January 13th.—Dr. Gilman Kimball, of Lowell, saw the case in consultation. In passing, he remarked, and called my attention particularly to, the hardness and immobility of the tumor; then proceeded to apply a method of examination suggested to him by Dr. W. L. Atlee, of Philadelphia, as follows: The uterine sound having been introduced and held firmly by the handle, Dr. Kimball pushed or rolled the mass from side to side. The impression imparted to the sound by this manipulation was direct and unmistakable. The instrument was now left to itself in utero and the clothing removed in order to note its

movements. The movements of the sound corresponded with those of the mass in a manner which showed unquestionably the close relation of the tumor with the uterus. Dr. Kimball considered it fibro-cystic disease of the uterus.

Having now fully determined to attempt a complete evacuation of the tumor, January 21st, in the presence of Drs. Wheeler, of Chelsea, Lyman and Chadwick, of Boston, I introduced a large trocar and canula in the median line, at a point two inches below the umbilicus. A continuous stream of bloody serum followed the withdrawal of the trocar, which coagulated on reaching the bottom of the vessel. It was thought at first, that what seemed like pretty severe hæmorrhage was caused by the severing of small vessels in the abdominal wall, and would soon cease spontaneously; I therefore allowed the fluid to flow until three pints had escaped. Its bloody character still persisting, there could be no mistaking the fact that our patient was losing a large amount of pure blood. The canula was therefore removed, and the discharge ceased at once. Our fears were soon proved not to have been groundless, for a moment later a state of complete collapse ensued. After nearly an hour of incessant effort on the part of the gentlemen present, she was finally resuscitated. Dr. Chadwick kindly remained with the patient from 5 till 8, P.M.

January 22d.—Patient slept very little the night before; experienced no pain, only slight tenderness at the point of puncture. On bottling the fluid and allowing it to stand, one-fourth consisted of blood coagula, which settled to the bottom; the remainder of an amber-colored serum, much the same quality as that mentioned before. Notwithstanding a most fickle appetite, in the course of ten days she seemed like herself again, though not quite up to her former condition.

March 10th, there was an effort at menstruation, the first since June previous. The flow continued four days, and was attended with the usual sensations. Having employed all the ordinary means of diagnosis, aided by the advice of others, I gave it as my opinion that her disease was fibro-cystic disease of the uterus, for the relief of which an operation was not to be thought of. I should have remarked that her family physician, Dr. True, of Farmington, Maine, who had watched the case for the past few years, had always been inclined to consider it uterine, and so expressed himself at the first visit. During March and April, I saw the patient less frequently.

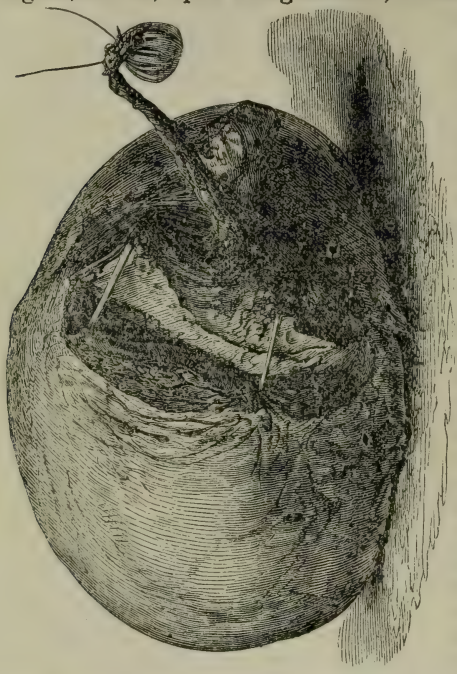
April 20th, I was summoned to see her. For some unaccountable reason, a marked change had taken place in her condition. The face was sallow, and œdematous; also decided œdema of the extremities. Little nourishment was retained, either by the mouth or by enema.

May 1st, the patient had changed beyond recognition; the face was still more œdematous. She lay in a semi-conscious, and at times delirious, state much of the time. On May 4th, death ensued.

Post-mortem, twelve hours after death, Dr. Wheeler being present. Body generally emaciated; incision passed through three inches of adipose tissue. On reaching abdominal cavity, came down upon a smooth, spherical body, the size of a pregnant uterus at the sixth month. The mass is entirely free from adhesions, superiorly, anteriorly and posteriorly; admitted of limited lateral motion, and is firmly attached low down in the pelvis at its inferior extremity. On being raised, the attachments are found to be with the bladder anteriorly,

and the pelvic wall laterally; not by the result of inflammation, but by normal tissue. The right tube and ovary were wanting. The left, round ligament and the central attachment being cut, the mass was removed entire.

The last procedure proved the central attachment to have been the vagina, which, upon being severed, revealed at the inferior extremity of the tumor, the os and cervix uteri. The sound passed into the uterine cavity, to the left, three and a half inches.



Examination of Specimen by Dr. Fitz.— General form nearly spherical; dimensions, ten inches long, eight wide; weight nine pounds. The outlines of the uterus are distinctly felt, situated in left anterior portion of the mass. On section, mean external length four inches; cavity, three and a half inches, is generally smooth, with a few small, elevated, submucous polypi. General thickness of wall normal. Right horn considerably elongated, funnel shape. Right Fallopian tube ten inches long, stretching over and attached to the surface of the tumor, terminating on the right side, in a closed sac, the size of a small intestine, dropsical, containing an ounce of dark-blue fluid. No appearance of fimbriæ. Left tube normal, small cyst at fimbriated extremity; left ovary apoplectic, size of a peach. Tumor intimately connected and continuous with the whole posterior surface of the uterus as far as just below the internal os, and had apparently extended outward, upward and between the layers of the right broad ligament. The upper portion of the broad ligament, a sort of sheath without adhesion. The right round ligament flattened out and elongated. To the right of round ligament, a depressed cicatrix, probably resulting from puncture. Tumor covered everywhere by peritoneum, except a small portion of the posterior and lower surfaces. Section through tumor showed its central portion to be a dense, tough, reddish gray tissue, and a greater portion of the surface representing cavities; a mesh-work of friable fibrous tissue filled with clear, amber-colored fluid. In one part of the tumor, a decolorized blood clot. The tumor was enclosed in a dense, apparently fibrous wall, which could be enucleated from its peritoneal investment. The most intimate connection between uterus and tumor was at about the middle third, where the tumor could not be enucleated from the uterus without injury to the uterine tissue. The tissues connecting the two were in the main fibrous, containing, also, involuntary muscular fibres. All the other organs healthy.

As to the cause of death, that the patient never fully rallied from the last tapping was quite evident. She was, however, very comfortable, and talked about returning to her home. The announcement that nothing could be done for her, although, as we have said before, she had never hinted at the least disappointment, must nevertheless have exerted a serious effect upon her, inasmuch as she had been for many years a great tax upon the patience and strength of an only daughter, who was herself an invalid.

A CASE OF PUERPERAL PERITONITIS, WITH SUDDEN DEATH WHEN APPARENTLY NEARLY RECOVERED.

By Francis J. Canedy, M.D., of Shelburne Falls.

Was called, March 19th, at 2 o'clock, A.M., to attend Mrs. S., a German woman, in labor with her fifth child. On my arrival, I found that the liquor amnii had escaped an hour before; but, on making an examination, found the uterus high up in the pelvis, so high, in fact, that it was with difficulty that I could reach the os, which was dilated only sufficiently to allow the introduction of the end of my index finger. I could not definitely make out the presentation at this time, but decided that it was not the vertex.

The pains were not hard. Two hours later, I found the os fully dilated, and the shoulder of the child presenting. I now introduced my hand into the uterus, accomplished version, and delivered the patient of a living child without much difficulty. I then administered one-half drachm of Squibb's fluid extract of ergot, as is my custom when contractions of the uterus are sluggish, and I have reason to fear post-partum hæmorrhage, which I was anxious to prevent in this case, the woman being in poor health during the latter part of her pregnancy, and at this time quite anæmic. In a few minutes after the administration of the ergot, a firm contraction of the uterus came on, expelling the placenta, and no hæmorrhage followed. Left her at 7½ o'clock comfortable.

March 20, A.M.—Found Mrs. S. apparently doing well. Pulse 80, and regular. Had taken one Dover's powder the previous evening, for the relief of after-pains, after which she had rested well during the night. The infant was well.

March 21, 8 o'clock, A.M.—I found Mrs. S. complaining of severe pain in her head; said she had not rested since midnight, and had been chilly at two or three times, but had had no severe chill. Pulse 100, with an uneasy sensation about the bowels, but no pain. The bowels were not tympanitic, nor was there much tenderness. Could feel the uterus above the pubes, but there was no evidence of inflammation of the organ. The lochia was natural. After a careful examination of the case, I decided that the headache and fever were caused by the coming of the milk, which was beginning to be felt in the breasts.

As the bowels were constipated, I prescribed a bottle of the solution of citrate of magnesia, one-half to be taken immediately, and the remainder in six hours, if the bowels were not previously moved, and

directed cold cloths to the head. In six hours, I was sent for to see her again. The pulse was now 135 per minute. Pain in the bowels very severe, with some tenderness; countenance pinched and anxious; tongue slightly coated. I concluded that the symptoms observed in the morning, and attributed to milk fever, were caused by the forming stage of puerperal peritonitis. I directed an injection to be given at once, which produced a free evacuation of the bowels, and prescribed opium, in two-grain doses, once in three hours, until the pain was relieved. Tincture of aconite root, in two-drop doses, every four hours, with hot hop fomentations to the bowels. Six hours later, and after taking four grains of opium, I found her nearly free from pain, with a pulse 118 per minute, and with a moist skin. I found that cloths had been applied to the bowels so hot as to make quite an extensive burn just below the umbilicus, which was smarting considerably, a method of counter-irritation that I had not counted upon.

March 22d.—Found Mrs. S. quite comfortable. Had slept considerable during the night, and was, at the time of this visit, pretty thoroughly under the influence of opium, having taken ten grains in eighteen hours. The pulse was 100 per minute; bowels somewhat tender, and moderately distended with gas. There was nothing in the breasts for the child this morning, nor was there ever at any subsequent period. I prescribed one grain of opium once in four hours, directed a flax-seed poultice to be applied to the abdomen, and that she be fed on beef-tea and milk.

March 23d.—Mrs. S. still more comfortable. Pulse 92; free from pain; countenance looking very much better; has some appetite. The burn upon the bowels getting somewhat troublesome, I directed it to be dressed with mutton tallow under the flax-seed poultice. No change was made in the treatment.

From this time, she continued slowly to improve for about two weeks, the tenderness entirely leaving the bowels, except in the left iliac region, which remained somewhat sore, causing her more or less pain daily, the pain running down the left leg to the knee, and sometimes to the foot.

The left thigh was retracted, and it caused great pain at the groin to straighten it. The appearance of the leg was natural.

Suspecting a pelvic abscess, I made a careful examination per vaginam during the first week in April, but found no indication of such a condition, and attributing the pain and soreness to inflammation of the peritoneum of this region, applied tincture of iodine, and covered the part with cotton and oiled silk, but with little apparent benefit.

She remained much in this condition during the first two weeks of April, pulse averaging about 90. Appetite poor; bowels loose. During this time, she took iron, quinine, porter, beef-tea, milk, &c.

April 14th, a profuse diarrhœa set in. April 15th, she vomited a large lumbricoid worm, and suffered much with nausea and retching during the day and night. On the morning of April 16th, another worm was vomited.

I now gave her one drachm of the fluid extract of spigelia and senna, followed in six hours with one teaspoonful of castor oil, which brought away, within twenty-four hours, thirty-seven large lumbricoid worms. At this time she was very weak, not able to be raised up in bed without faintness. Pulse 100, small and irregular. After the ex-

pulsion of the worms, the nausea ceased, and the appetite became better, the patient taking a fair quantity of beef-tea and milk daily, which, with ale and tonics, soon improved her strength considerably, though the diarrhœa continued in a mild form for some time.

The trouble in the left iliac region and thigh improved but slowly. For two or three hours during every afternoon she had considerable fever, the pulse rising to near 100, the face becoming flushed, and headache and thirst being complained of. During the remainder of the twenty-four hours, the pulse averaged 85 to 90. She rested quite well at night, taking, every evening, one grain of opium.

The first week in May, the patient becoming somewhat discouraged at her slow progress, Dr. C. M. Duncan, of Shelburne, was called in consultation, who thought she was doing as well as she could expect, prescribed to her patience and good courage, and recommended a continuance of tonics, nutritious diet and counter-irritation.

At this time her pulse was 80, but intermittent. From this time up to the day of her death, which occurred May 22d, her improvement was constant, and, during the last week, had been rapid. The evacuations from the bowels had become natural, her fever had left her, the pain and soreness in her bowels and leg had pretty much subsided, and she could walk about her room quite well. Her pulse, for one week before her death, had been 75 and regular. In the afternoon of May 22d, while lying upon her bed, after feeling unusually well during the day, she called for water, saying she was faint, and expired before her friends could reach her bedside.

The autopsy took place May 23d, P.M., Drs. C. M. Duncan, C. E. Severance and myself being present.

The stomach and bowels were considerably distended with gas, which we concluded was *post mortem*, as it was not observed when I examined the body a short time after death the previous day. There were about four ounces of water in the pericardium. The heart was normal in size and form, as was also its walls and valves. In the right ventricle was a clot, which had the appearance of being pure fibrin, some two and one half inches long, and three fourths of an inch thick at its largest extremity, gradually tapering to a point at the other. This clot was so firm that some force was required to break it down, and of a light, almost white color, except at its larger extremity, which seemed to contain red blood-discs. Pulmonary veins filled with coagulated blood. In the abdominal cavity there were some six ounces of water, but no pus. The uterus appeared normal. The peritoneal covering of the left Fallopian tube and ovary was somewhat congested, and a portion of the fimbriated extremity of the tube was adherent to the walls of the abdomen at one point. The peritoneal covering of a portion of the small intestine on the left side was reddened, showing the marks of recent inflammation. The spleen was large, and adherent to the walls of the abdomen at one point, and also to the stomach above the gastro-splenic omentum. The liver was much congested, but in other respects normal. The kidneys were not examined, as no symptoms of trouble in those organs had ever been observed in the patient. Lungs healthy so far as examined. Brain not examined.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By Gilman Kimball, M.D., of Lowell.

(Continued from page 595, vol. xc.)

Miss B., of Greenfield, Mass., 32 years old, unmarried, of rather feeble constitution, discovered, about two years ago, that she was growing large in the abdomen; no distinct tumor, but simply an unusual fulness. There was also swelling of the lower limbs. She took diuretics, and the swelling, both in the abdomen and the limbs, mostly disappeared, and her health seemed quite restored. The improvement, however, was only for a short time; abdominal enlargement returned, and the lower limbs became again swollen as badly as ever; there was also a decided change in her general health—loss of appetite, emaciation, great debility, &c.

Abdominal distention becoming excessive and distressing, she was tapped, and relieved of about thirty pounds of ascitic fluid. It was now discovered that the abdomen was occupied with several well defined cystic tumors, the largest seven or eight inches in diameter, obviously ovarian.

Relief from tapping was of short duration; the dropsical condition soon returned. The question now arose, whether this merely palliative measure should be repeated, or an operation be performed with a view to a radical cure. With a full comprehension of the magnitude and danger of such a procedure, the latter proposition was decided upon.

In pursuance of this decision, I was applied to, and visited the patient the 30th of November, 1868. I found the case not altogether so favorable as I had anticipated, yet not so unpromising as to justify my refusing to give the patient the only chance for her life. The operation was performed without further delay. Drs. Walker, Dean, Osgood and Fiske, of Greenfield, and Stedman, of Brattleboro', were present and assisted.

On making an incision through the parietes, some five or six inches in length, between the umbilicus and pubes, the peritoneal cavity was found largely occupied with ascitic fluid. This was mostly removed before proceeding further in the operation. The tumor, consisting of both cysts and solid matter, was found attached to the parietes in front and on each side by firm adhesions. The omentum, also, was implicated to some extent. In breaking through the adhesions, and in the effort to dislodge the tumor, several cysts were unavoidably ruptured, a circumstance that necessarily complicated and prolonged the operation.

Before cutting away the tumor, the pedicle was tied in two parts with silk ligatures, the stump dropped back, and the ligatures passed out of the pelvis through the vagina.

The hæmorrhage incident to the breaking through the adhesions, and from the torn omentum, was rather profuse. Several vessels opening upon the parietal surface were tied with fine silk and the ligatures cut close to the knot. The omentum bled from too many points to admit of each vessel being tied separately; and in order to meet the

difficulty in the most effectual way, a considerable portion of it was embraced in a single ligature and then cut clean away.

Before closing the incision, the matter that had escaped into the peritoneal cavity from the ruptured cysts was carefully and thoroughly removed by means of sponges and soft cotton cloths. The lips of the wound were brought together with six deep sutures, and so adjusted that nearly all the points of peritoneal surface damaged by adhesions were effectually excluded. Outer dressings the same as usual.

The patient was a good deal exhausted immediately after the operation, but soon rallied, and showed no signs of sinking. During the following night, she slept several hours, complained of no pain or other suffering; on the whole, was more comfortable than could reasonably have been expected.

The subsequent history of the case I quote from the carefully kept record sent me from day to day by the faithful and judicious attending physician, Dr. A. C. Walker.

"The condition of Miss B. from 7½ o'clock, A.M., yesterday, Dec. 1, to 7½, A.M., to-day, Dec. 2, has been as follows:—

"At 7½, A.M., yesterday, pulse 116. 1, P.M.—Pulse 130. 3, P.M.—Pulse 120, after opiate and beef-tea. At 5, P.M., pulse rose to 130, and so continued till 1, A.M., this morning, Dec. 2, when it rose to 140, somewhat fluctuating. After beef-tea and an opiate, it became steadier. 7, A.M.—Pulse 132; abdomen a little distended; complains of some pain. On the whole, the vital powers seem to have failed considerably.

"Dec. 3d.—Record of case ending this morning at 6½ o'clock. Beginning at 9, A.M., yesterday (Dec. 2).—Pulse 130, sharper than usual; face pinched; no tympanites; no pain.

"1, P.M.—Pulse 140; suffers from pain occasioned by flatus; slight distention. Took twenty drops of laudanum with relief. Flatus relieved by rectal tube.

"6, P.M.—Pulse 140. Continues bright. Says she feels quite comfortable. Takes beef-tea and stimulants freely. Dark discharge from vagina noticed for first time. Urine drawn by catheter every eight hours; six or eight ounces each time, of good color.

"3, A.M., Dec. 3d.—Pulse 132, fuller and softer. Sleeps quietly; taken no opiate since 1, P.M., yesterday. Complains of feeling '*tired.*' No vaginal discharge.

"6, A.M.—Pulse 134. Just waked up. Says she feels quite like herself. Takes nourishment a little more freely. Bears stimulants well; says they agree with her better than anything else. Vaginal discharge returned. No appreciable fulness of the abdomen. No appearance of accumulation of fluid in the peritoneal cavity. Countenance clear and bright. For the first time during the last twenty-four hours, a decided moisture of the skin.

"12, M.—Pulse 128. More febrile action; face flushed; some 'pain in the bowels'; noises in the street irritate and disturb her. Took a tablespoonful of whiskey and twenty drops of laudanum at 11. Discharge from vagina continues. No abdominal distention. No signs of accumulation of fluid.

"2, P.M.—Pulse 135, soft, not full. More comfortable; less excitable; less pain.

"6, P.M.—Pulse 140, soft and very compressible. Says she '*feels*

so tired and nervous.' Took a laudanum enema at 5, and beef-tea, ten to twelve ounces in the last fifteen hours; agrees well with the stomach; no nausea. Urine by catheter, eight ounces. No pain in the bowels, 'except what goes through from the back.' General appearance that of weakness and nervous irritation. Mind perfectly clear, and reacts well under the influence of opium and stimulants. Slight discharge from vagina. Bowels somewhat distended.

"1, A.M., Dec. 4th.—Clammy sweat all over the body; distention of the abdomen; apparently sinking. Relieved deep sutures; the lips separated rapidly. An attempt to introduce a female catheter into the abdomen through the lower end of the incision caused a good deal of exhaustion. It was followed, however, by a slight oozing from the wound and a return of warmth to the extremities.

"3, A.M.—Pulse 145, weak. Skin not quite as clammy. Took whiskey and beef tea; also an enema with twenty-five drops of laudanum. Sleeps well. Mind perfectly clear.

"12, M.—Pulse 145, soft and weak. Quite drowsy; has slept most of the time for the last three hours. Less nervous and irritable. An attempt to get a discharge through the wound failed.

"3, P.M.—Appears a little better. Pulse 135, soft and weak, but distinct. Countenance brighter; says she 'don't feel as though she was going to die.' Mind clear. Voice natural. Just had a free discharge per vaginam. Dressings all removed. Incision all healed, except an inch at the lower end. Very little distention. Only a slight fulness about the umbilicus, which seems like a hard tumor with distinct outlines, sensitive, but not painful.

"8½, P.M.—Same as above as to general condition. Within the past two hours, had two discharges from the bowels, liquid, with considerable flatus; from two to three ounces fœtid discharge from vagina.

"6, A.M., Dec. 5th.—Pulse 130, fuller and stronger. Has slept naturally several hours during the night. Taken freely beef-tea and brandy. Vaginal discharge continues. Coughs occasionally, from accumulation of mucus in the fauces and bronchi. The nervous, excitable condition of yesterday has passed away, and she is comparatively comfortable.

"2, P.M., Dec. 6th.—Pulse 135. Cough troublesome, causing some pain in the bowels, and considerable exhaustion. Otherwise, symptoms are favorable.

"Dec. 8th.—Condition of patient is slightly improved within last twenty-four hours. Pulse, at 3, P.M., yesterday, 130; afterwards came down to 124, and so continues. Greatest trouble, mucus in the fauces and bronchi. Distention of abdomen mostly gone. Discharge from vagina more abundant. Says she feels better and stronger. Sleeps quietly and is refreshed. Has vomited once; nausea continued some time after, but was relieved by lime-water and milk.

"Dec. 10th.—Last night, upon removing the dressings from the lower angle of the incision, there welled out from the peritoneal cavity some ten or twelve ounces of sero-purulent fluid, dark colored, very offensive; several ounces more escaped through the night. Following this event, the bowels became more distended than ever, and attended with considerable pain; pulse 134; inclined to sweat. On the whole, not quite as well as twenty-four or forty-eight hours ago.

"Dec. 12th.—Less appearance of sinking than yesterday and day

before; pulse has steadily fallen from 134 to 110; this morning, sleeps well; disinclined to take nourishment as heretofore; it is now given per rectum, once in two to four hours; discharge continues from the abdomen and from the vagina; very offensive; ligature separated from omentum; incision not inclined to heal soundly; points perforated by sutures, disposed to ulcerate. Urine abundant; bowels moved naturally twice in the last twenty-four hours.

"Dec. 15th.—No more unfavorable symptoms; pulse has gradually come down to 100, fuller and stronger; countenance natural; sleeps well; appetite good; takes beefsteak, eggs, &c.; discharge from abdominal incision diminished, and less offensive; vaginal discharge still continues; bowels moved twice daily; incision not disposed to heal; lips still held together by adhesive strips.

"Jan. 5th.—Patient has continued to improve, though slowly; incision almost closed; lower angle still open slightly; appetite good; strength gaining every day; pulse 85 to 95, and stronger. On the whole, the case now bids fair to result in ultimate recovery."

In reporting the above case, I have made a transcript of nearly the entire record furnished by the attending physician. I have done so because a less minute account of it might fail to present in a just light the special points of treatment it was designed to illustrate.

Aside from the *generally* unpromising aspect of the case at the outset, the several difficulties that presented themselves during the progress of the operation were such as were calculated to greatly lessen the chances of a favorable result. I allude, of course, to the dropsical effusion, extensive adhesions, and rupture of cysts, with an escape of contents into the peritoneal cavity.

As regards the dropsical condition, it might not of itself have been regarded as a matter of very great importance; in connection, however, with the other conditions referred to, it became a more serious complication. Following the operation, there was to be, to some extent, at least, a reaccumulation of ascitic fluid; this fluid was to combine with more or less blood and cystic matter (the thorough removal of which from the peritoneal cavity is always next to impossible) and the result would be, probably, the formation of a poisonous material that would almost inevitably give rise to all the fearful symptoms of septicæmia.

It was with the view of providing against this contingency that the plan of passing out the ligature of the pedicle through the vagina was resorted to; a plan I was the more inclined to adopt in the present instance from the obvious benefits already derived from it in previous cases. How far, in point of fact, the early discharge of matter brought about by this means may have served to modify or mitigate the severity of those symptoms that began to manifest themselves within the first forty-eight hours after the operation, it is, of course, impossible to determine; all things considered, however, it is only reasonable to suppose it *may* have been, in fact, the life-saving circumstance in the case.

Early on the third day after the operation, symptoms assumed a threatening character; by the fourth day, they had become much worse, so much so that speedy dissolution seemed almost inevitable.

At this critical juncture, a dark-colored, fœtid fluid began to make its way out of the pelvis through the vagina. The discharge, at first

scanty and inconstant, was followed by no decided evidence of relief, yet it was a noticeable fact that the symptoms, hitherto so threatening, had now *ceased to grow worse;* also, that after a few hours, as the discharge increased and became more constant, the case assumed a more hopeful aspect, and so continued till the tenth day, when the incision reopened at its lower angle, giving exit to a still further discharge, similar in character to that which had been passing off all the while by the vagina. This last discharge was evidently the result of a secondary formation, and its timely occurrence may have been the means of preventing a return of those terrible symptoms which had already well nigh proved fatal.

As was the case upon the first appearance of discharge from the vagina, the relief that followed its escape through the last abdominal opening was not immediate (indeed, for two days, symptoms were even more alarming than ever); on the third day, however, the thirteenth after the operation, the case took on a more favorable aspect; the pulse, strength, appetite, in short, every symptom indicated that probably all danger was passed, and that convalescence was, at last, fully and permanently established.

But while illustrating in this case the obvious advantages of a special plan for relieving the pelvis of secondary and poisonous accumulations in the most direct and effectual way, it is well, also, to take into account the *supporting* treatment pursued during the first ten days succeeding the operation. Medication in any form during this critical period could be of no benefit; the obvious indication was to supply the system liberally with nourishment and stimulants. To this end, animal nutriment, mostly in the form of beef-tea and broths, was given at short intervals, and in such quantity as the stomach would tolerate, and when objected to on account of nausea or loathing, the same form of nourishment, in equal or even larger amount, was administered by the rectum. Milk with lime-water was given in considerable quantities, and evidently with good effect. Brandy and whiskey were resorted to, as the prostrate and sinking tendency seemed to render necessary.

As might have been expected, convalescence in this case was very slow. Indeed, several months had elapsed before improvement had reached a degree equal to what is oftentimes seen in *uncomplicated* cases within a fortnight. At length, however, a satisfactory recovery has been attained. The patient is now a resident of one of our Western States, and it is only a few days since that I was informed that she is in the enjoyment of perfect health.

(To be continued.)

TREATMENT OF CHOREA.—Dr. Ransom Dexter, of Chicago, reports the successful treatment of a severe case of chorea, which had resisted all the usual remedies, by ordering perfect rest and quietude for the patient. She was ordered to have the blinds closed, to be kept in the middle room of the house, to observe the strictest quietude in every particular, even to lying as still as possible upon a lounge. Her attendants spoke but little, and the room was kept in a twilight condition.—*Chicago Journal of Mental and Nervous Diseases.*

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. Hayden, M.D.

Diseases of the Vertebræ in Children.

Dr. Rudolph Demme, instructor in children's diseases, and physician to the Children's Hospital in Berne, gives, in the *Jahrbuch für Kinderheilkunde* N. F. vii. *Jahrgang*, 2 Heft, March 3, 1874, a very interesting article upon "Diseases of the Vertebræ in Children." The material used embraces 138 cases treated in this hospital between July 1862, and the end of December, 1872. Of these, 23 were severe cases of ostitis and periostitis, 10 affecting the cervical vertebræ, 8 the dorsal vertebræ and 5 the lumbar vertebræ. The remaining 115 include, partly, cases of rhachitic disease of the vertebral column, and partly mild cases of ostitis and periostitis (subacute or chronic).

The following are the most important results of the author's observations and researches:—

Diseases of the vertebræ in children can be divided into three classes:

1. Rhachitic, affecting both the bones and the ligaments (a manifestation of general rhachitis); this never is found without the presence at the same time of a similar affection of the ribs and of the extremities, although we find, frequently, rhachitis of the thorax and of the extremities without the vertebræ being affected.

2. Mild cases of ostitis and periostitis, of traumatic origin, mostly healing without consecutive caries and necrosis.

3. Severe cases of ostitis and periostitis, of scrofulous and tuberculous character, with consecutive caries and necrosis, formation of congestion, abscesses, &c.

To be distinctly separated from these actual diseases of the vertebral column are the curvatures of the spine, which in no way depend upon disease of the vertebræ, or of their ligaments, but which have their origin in unequal action of the muscles of the two sides, caused by faulty habits, or by muscular weakness of one side, or in the sinking in of one half of the chest, resulting from the absorption of a pleuritic effusion.

The thoracic portion is the most frequently affected, less frequently the lumbar and cervical portion, and less frequently still the sacral region.

Girls are affected more frequently than boys; on the contrary, however, the severer form of the disease occurs oftener in boys.

The severer affection (kyphosis) is more common between two and eight years of age, the milder form (scoliosis) occurs more frequently between two years of age and puberty.

Rhachitis of the vertebral column is most frequent in the course of the second year, and attacks, generally, the lower third of the dorsal vertebræ and lumbar vertebræ. Permanent curvatures of the spine are left behind only in severe forms of the disease, in which case there is also combined a spiral turning of its axis.

Vertebral ostitis can occur in children of any age, and makes its appearance sometimes in fœtal life. The inflammation can run a per-

acute, acute or chronic course. The anatomical changes are essentially the same in all three forms, differing only in degree. Where the disturbances of nutrition in the affected, osseous portions are especially severe, caries and necrosis ensue. Ostitis almost always has periostitis associated with it.

Primary periostitis of the vertebræ is found more frequently in children than in adults Circumscribed, multiple, periosteal inflammation of the vertebræ occurs sometimes in children as a manifestation of constitutional hereditary syphilis.

In cases of vertebral disease, whether rhachitic or of inflammatory nature (ostitis and periostitis), the ligaments are also affected (especially the intervertebral ligaments).

The following are amongst the most important symptoms, in severe cases of vertebral disease :—

1. Pain. This can consist in increased sensitiveness of the affected part, in violent pain on pressure, on motion, &c., or in paroxysms of pain arising spontaneously without exciting cause. In cases of vertebral periostitis, pain is generally present from the very beginning, and it is also much more severe than in vertebral ostitis ; in chronic vertebral ostitis, the pain can often be absent during the entire first stage of the disease. When due to periostitis, the pain is always situated over the seat of the disease ; in ostitis, it is sometimes referred to places far remote from the diseased part, to healthy portions of the spine, to the extremities, hip- and shoulder-joints, &c. This peculiarity belongs more to the spontaneous paroxysms, palpation nearly always showing the spot from which the pain has its origin. The spontaneous pain occurs not seldom in periodical paroxysms, as at night, during digestion, &c. These spontaneous pains are sometimes observed where neither the cord nor its membranes have become involved in the disease, and are then probably due to the mechanical pressure of the swollen and congested soft parts upon the posterior roots of the nerves at their point of exit. It is not a constant symptom, and pain upon pressure over the diseased vertebra even can, in exceptional cases, be absent, this symptom depending in large measure upon how much involved the periosteum is.

2. A temporary or permanent unnatural stiff carriage of the vertebral column ; sometimes also of the head and pelvis, especially when stooping, bending forwards, &c. This is sometimes the first noticeable symptom in commencing ostitis vertebrarum, there being neither pain on pressure nor any deviation in form, these latter symptoms not appearing until several months afterwards.

3. Angular deformities and curvatures of the spine.

In the severest forms of the disease which have terminated in caries and necrosis, we find also :—

4. Formation of congestion abscesses, and

5. Affections of the spinal cord and its membranes, with the series of symptoms belonging to them.

Naturally, it is in the advanced cases of spondylitis which have gone on to caries with abscess formation and angular curvature, that the latter affections are most frequently observed, manifesting themselves in addition to the above described pains, by paralysis, paresis, contraction of the extremities, &c., and sometimes causing convulsions. In the earlier stages of the disease, especially when ushered

in with acute symptoms, a hyperæmic swelling or œdema of the cord or of its membranes, occasioned by pressure, can cause the described symptoms. By such changes we would explain the occurrence of paralysis and convulsions, where they are but of short duration. Where they remain stationary, and are ushered in with acute or sub-acute febrile symptoms, then it is more probable that the inflammation has directly extended to the spinal cord and its membranes. Next to permanent total paralysis and paresis, contractions of the extremities are a most unfavorable symptom, as they nearly without exception point to immutable destructive processes in the spinal cord itself.

Decided elevations of temperature, distinctly referrible to the disease, were found only in cases of peracute vertebral ostitis and periostitis, and these were of a continued character, the morning remissions being inconsiderable, and the highest evening exacerbations fluctuated between 39·4° and 40·1° C. In all the cases running a sub-acute or chronic course, evening exacerbations above 38·5° C. were always due to some intercurrent acute affections of other organs, acute catarrhal affections, catarrhal pneumonia, &c. In exceptional cases of acute ostitis and periostitis of the cervical and thoracic vertebræ, an elevation of temperature of an intermittent character was observed. Large doses of quinine, continued several days in succession, brought the temperature down to 38·0° C. In a series of other cases of acute inflammation, the fever was of remittent form, the evening temperature rising to 39·0°–39·5° C., and the morning remissions falling to 38°–37·8° C. Nearly always, the temperature was higher in the afternoon, between 2 and 3, than in the evening.

The diagnosis of vertebral disease is founded upon the above described symptoms, and, in its advanced stage, is not difficult; on the other hand, the earlier stages sometimes escape detection, especially in vertebral ostitis existing in circumscribed osteo-myelitic herds, where the pain and deformity are but slight. The affections of the cervical portion offer, as a rule, the greatest difficulties for diagnosis. In some cases of acute circumscribed vertebral ostitis and periostitis, the child carries one or both thighs in the way peculiar to acute coxitis, using also, in walking, the gait peculiar to the latter disease; and if a careful examination of the back have not been made, it could easily happen that mistakes in diagnosis could be made which would not be discovered until, in the further progress of the disease, spinal deformities and other consecutive symptoms had made their appearance.

The question whether the inflammatory disease has run its course, or is still in progress, is often a very difficult one. In nearly all severe cases, even after cure has been effected, the first attempts to stand and walk are made with great difficulty, and the little patients sometimes experience squeezing sensations in the abdomen, referred to the place of insertion of the diaphragm, or to that of the recti abdominis muscles. These painful sensations, in cases completely cured, correspond with muscular pains that one is accustomed to feel after unusual muscular exertions, as in riding, gymnastics, &c. They can take place in cases not cured, and are then caused by extension of the inflammation towards the spinal canal, or by pressure of the infiltrated soft parts upon the roots of the nerves at their exit, &c.

The prognosis depends upon the constitution and general condition

of the patient, upon the cause of the disease, upon the acute or chronic character of the same, and upon the circumstance, "what part of the vertebral column is the seat of the disease," and "how soon after it originates it comes under treatment."

The treatment of vertebral diseases of children is based upon the etiological and anatomical relations of the disease, and follows the principle of treatment of diseases of joints generally. Of first and greatest importance, is the most complete rest possible. Such rest can be obtained by no apparatus, so as to admit of the patient's walking, standing or sitting, and throughout the whole duration of inflammatory symptoms the treatment can only be carried out with the patient *in bed*. In cases of relaxation and softening of the vertebral ligaments, due to general rachitic disease, a linen band, tightly enveloping the body and extending from the axilla to the hips, suffices to confine the patient on his back, being fastened to the bed by lateral bands attached to the side of the bed or to the outer slats. When the disease is more advanced, and when the patients are very restless and unmanageable, the author uses a well-fitting wire case, carefully padded. Such cases are made by Heren Wolfermann, Berne. It is better to include the patient's thighs in the apparatus. The slipping of the body upwards is best prevented by means of braces, and the body is secured in this wire case by wide breast-bands and hip-bands. An opening allows the acts of micturition and defæcation without disturbing the patient. The patient, fastened in the case, can be taken out in the open air. The case must be so constructed as to have no pressure on the spinous processes of the vertebræ, it being so arranged that they come to lie in a groove. Where there is a tendency to decubitus, the case can be lined with a specially constructed water-mattrass. When there is periostitis of the spinous processes, it is a good plan to put the patient for a few days upon the belly; when restless, being fastened by the linen band to the bed. If necessary, an ice-bladder can be placed over the band upon the affected spot. The neck, axilla, upper portion of the chest, hips and ham must be supported with pads of straw or bran. The application of tincture of iodine and of blisters is of service. In two cases of advanced vertebral ostitis, the author obtained most excellent results from the energetic and extensive use of the actual cautery at a white heat to the neighborhood of the diseased vertebræ. The use of this most painful remedy is very exceptionally necessary, as in the great majority of cases of vertebral ostitis and periostitis, recovery takes place by complete rest, application of ice, &c.

Congestion abscesses, when they do not take dangerous directions or purulent absorption is not threatened, should be left to open spontaneously.

Great care must be taken for good air and nourishment. Owing to the weak digestive powers of these children, there is often great difficulty in sufficiently nourishing them, having often to contend against flatulency, chronic vomiting and diarrhœa. For the latter, small quantities of lime-water and brandy, added to the milk, are often very useful. The body should be daily washed with cold water, and subsequently rubbed with a rough towel. This can be best performed with the patient lying on his side.

One of the most difficult questions in the treatment to decide is:—

when can the patient be allowed greater freedom of movement, to stand, sit up and walk? And, further: do they need a supporting apparatus, or is it, under certain circumstances, best not to use them? Where the case has been one of ostitis or periostitis of one or more vertebræ, already far advanced, a longer time is needed for recovery, and the first attempts to move should not be allowed for at least six months. The time for allowing this is determined, in these cases, by: the entire absence of pain over the diseased vertebræ on pressure, the absence of pain extending towards the upper chest, abdomen or extremities, and absence of increase of already existing spinal curvature, after careful attempts at standing made several days in succession; and, finally, the absence of general febrile action after those experimental practices. If, under the above circumstances, nutrition increases steadily and there are no disturbances of the general health, the attempts to stand and walk are continued, gradually increasing in duration. The progression must be a very guarded one, and it is advised from time to time to rest a day.

In those cases where the patient, after these exercises, becomes rapidly and markedly fatigued, or where it is not possible to carefully watch the patient, it will be necessary to support the vertebral column with an apparatus. The lighter this is constructed, the less the breast and abdomen are compressed, the more correctly the points of support for the application of the apparatus are chosen, the better will it answer its purpose and the better tolerated by the patient. The apparatuses of Chas. Fayette Taylor are recommended as the best, both for the earliest stages of the mildest forms of this disease as well as for the stage of convalescence.

For those cases of spinal curvature depending upon relaxation of the vertebral ligaments, one-sided muscular action or faulty positions, in addition to removing the cause, the author recommends wearing the wire case of Bonnet during the night. When this is followed for several months, in a majority of cases there is a sure and lasting cure.

For the treatment of patients affected with rachitis of the vertebræ, the placing of the patient on his back during the night in a properly fitting case, and for a few hours during the day, generally suffices. The child must be as much as possible in the open air, and the administration of cod-liver oil, during the cold seasons of the year, does most excellent service.

In the article from which this abstract is made, several of the most interesting cases are reported in full, and at the end is a tabular statement of the twenty-three cases of severer vertebral periostitis and ostitis observed by the author in the Children's Hospital.

(To be concluded.)

Dr. T. C. RENNER writes to the Department of Agriculture that, several years ago, he collected some poke-root (*Phytolacca decandra*) for medicinal purposes, and spread it at several places about the house to dry. Soon after, he observed that many cockroaches were lying dead, and, upon examination, found that they had been partaking freely of the poke-root. Some of the root was placed near their haunts, and the result was that it rid the premises of those insects. Others have since tested the remedy with satisfactory results.—*The Popular Science Monthly*, July, 1874.

Reports of Medical Societies.

American Ophthalmological Society.

The tenth annual meeting of this Society was held at the Aquidneck House, Newport, R. I., on Thursday and Friday, July 16 and 17, 1874, the President, Dr. C. R. Agnew, in the chair. Twenty-six members were present, from the cities of Albany, Baltimore, Boston, Brooklyn, Detroit, New Bedford, New York, Philadelphia, Pittsburg, Rochester, St. Louis and Worcester.

The following bulletin of papers was reported by the committee appointed by the President, and, after discussion, referred to the Publishing Committee.

1. Case of Herpes Zoster, the side of nose involved without affection of the eye. Dr. Wadsworth.
2. Six cases of Zoster. Dr. Jeffries.
3. Two cases of Syphilitic Lesion. Dr. Bull.
4. Case of Sympathetic Irritation following Injury. Dr. Dyer.
5. Sympathetic Ophthalmia. Dr. H. Derby.
6. Acquired Astigmatism. Dr. Noyes.
7. Atropine treatment of Myopia. Dr. H. Derby.
8. Case of Excessive Myopia. Dr. Noyes.
9. Case of Inflammation of the Orbit. Dr. Noyes.
10. Three Cases of Conical Cornea. Dr. Thomson.
11. Mydriasis Treated by Electricity. Dr. Webster.
12. V = 47-16. Dr. Jeffries.
13. Value of Color Tests. Dr. Green.
14. Optic Neuritis. Dr. Norris.
15. Circulation of the Retina. Dr. Bull.
16. Modification of the Ophthalmoscope. Dr. Loring.
17. Some Ophthalmological Notes. Dr. Loring.
18. Canthoplasty. Dr. Althof.
19. Trephining the Cornea. Dr. Agnew.
20. Treatment of Blepharospasm. Dr. Mathewson.
21. New Hook for Enucleation. Dr. Hay.
22. Congenital Lachrymal Fistula. Dr. Agnew.
23. Sarcoma of Choroid. Dr. Wadsworth.
24. Sarcoma; Enucleation. Dr. Stevens.
25. Sarcoma. Dr. Jeffries.
26. Foreign Body. Dr. Jeffries.
27. Three New Instruments. Dr. Murdock.
28. Operations for Entropion and Trichiasis. Dr. Green.
29. One hundred and eighteen Cataract Extractions. Dr. Agnew.
30. Twenty-two Cataract Extractions. Dr. Rider.
31. A New Method of Operating for Strabismus. Dr. J. F. Noyes.

The following officers were elected for the ensuing year:—

President.—Dr. C. R. Agnew.

Vice President.—Dr. G. Hay.

Recording Secretary.—Dr. R. H. Derby.

Corresponding Secretary.—Dr. H. Althof.

Committee on Progress of Ophthalmology.—Dr. O. F. Wadsworth.

Publishing Committee.—Drs. H. D. Noyes, E. G. Loring and R. H. Derby.

The School of Medicine in Paris was the scene of an anti-clerical demonstration recently. M. Hardy, one of the professors, was denounced by the *Univers* for classing the confessional among the predisposing causes of insanity. The students, by way of protest, saluted M. Hardy on his resuming his course of lectures. He was received with a triple round of applause. The *Univers* stigmatizes them as "irreverent sawbones."—*Lancet*, July 11.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 6, 1874.

Now that the accounts of the late meeting of the American Medical Association, as given in the various medical journals, have been received, together with the comments of the medical press on certain reforms which have lately been adopted by this organization, we are, in a measure, able to judge not only of the character of the meeting as compared with former ones, but also of the prospects which the Association, on its present basis, may hold out in the future for fairly representing the medical profession of this country.

The opening address was delivered by the President of the Association, Dr. Toner, of Washington; his remarks were of an interesting character, showed the true spirit of progress, and reflected credit upon himself and the Association.

There seems to have been little of interest occurring at the general meeting, the chief work having been accomplished by the members of the various sections. This is as it should be, and is in marked contrast with the exciting debates and absurd quarrels of former years. It is to the transactions of the sections, then, that we must turn for evidence as to the true character of the meeting. We regret to say that we find here little worthy to record. Beyond a somewhat "acrimonious" debate on the treatment of fractures in the surgical section and the reading of a few papers in various sections, a very few, whose authors' names render it probable that they were of a creditable standard, there was little done to make this meeting noteworthy or even creditable to the profession.

We are not familiar with the precise laws which regulate the selection of members of the new judicial council, the great feature of the present reform. It is evident, however, that the organizers of this council, or those on whom the duty of electing its members has devolved, have not succeeded in making it a body which is in any sense truly representative of the more distinguished portion of the profession, a character absolutely necessary for it to possess should it be considered desirable to induce a large, and, we believe, a better element in the profession, to take any active part in the affairs of the Association. The new plan of limiting delegates to State associations only, although perhaps an improvement on the old one, cannot alone be expected to effect this much to be desired change.

Two years ago, we gave the outlines of a scheme by which the character of the Association might be redeemed. The present reform can-

not be considered more than a half-way measure which holds out small hopes for any decided improvement. Moreover, the spirit in which certain criticism on the character of the Association has been received by some of its most influential members, is not encouraging to those who hoped to find existing among its leaders an earnest desire to discover the faults of the old organization and to raise it to a standard high enough to satisfy even the most exacting critic, and make it not only thoroughly creditable to the profession, but also fairly representing all sections of the country.

The Army bill passed by the last Congress, after long discussion, has disappointed many who hoped that something like justice would be done to the Medical Staff. The profession has very properly taken great interest in this matter, and it is not an agreeable thing to be forced to the conviction that its earnest appeals in behalf of Army surgeons have been despised by our legislators. Instead of providing for any increase of rank, or giving any encouragement to good officers to look forward to promotion, Congress has reduced the corps by cutting off two lieutenant-colonels and ten surgeons. Thus, while provision is made by the bill for the filling of existing vacancies in the grade of assistant surgeons, not only are the inducements taken away that will make the service reasonably attractive and remunerative, and lead *competent* young men to enter it, but tried and experienced officers have been defrauded of the well-deserved promotion that has for years been delusively held before them, till now they are unexpectedly assured of many more years in an inferior rank.

It is difficult to conceive of anything more discouraging than the labor, under such circumstances, of keeping up the service to the high standard that has been raised for it. The Surgeon-General, in his annual reports of the last five years, has declared that serious and increasing injury has been done to the service by the persistent neglect of its manifest requirements, notwithstanding his report in 1872, that "many of the best medical officers, having the advantage of the large experience of the late war, disheartened by the faint prospect of advancement are resigning"; and that after repeated appeals to Congress, he was compelled, in his report of last year, to "urge most earnestly upon its attention the pressing and absolute necessity for such legislation as will secure to our officers and soldiers the efficient and reliable attendance in wounds and sickness which the government should provide."

The indifference that has been manifested by Congress to the claims of the medical officers for like consideration with other staff corps, has only been equalled by its thoughtless disregard of the needs of the officers and soldiers for whom it is its duty to provide.

To give dignity to the position of a medical officer and make it attractive; to make the commission so valuable and desirable as to command the best medical talent, directly and humanely promotes the welfare of the whole army. The attainment of this end should be made paramount to all other considerations; but it has been hindered by all recent legislation in the matter, and the present law, which apparently provides for more commissioned officers, will not prove satisfactory. Good men will avoid the service, and the corps will be slowly filled; while irresponsible and often incompetent contract-surgeons must still be employed.

Would it not be well, in the future discussion of this subject, to make more prominent the claims of the Army upon Congress and the country for at least competent medical attendance?

This matter should not be allowed to rest here. In the interest of humanity and the efficiency of the public service, renewed and more determined efforts on the part of the profession should be made to influence legislation in the right direction.

Correspondence.

Letter from Edinburgh.

Edinburgh, July 16, 1874.

The quaint old city looks much as it did five years ago, when I first saw it, but it is fully as charming on the second visit as on the first. I have no means of knowing how many changes may have taken place in medical circles, but doubtless one of the most important is the removal hither of Mr. Lister from Glasgow. He has greatly simplified his method, but the underlying principle is the same, and the results, as he claims, better than ever. I, of course, am unable to judge of the latter statement by a single visit, but my belief in the soundness of the principle and in its great advantage for hospital practice remains unshaken. Success by this method is, like liberty, to be secured only by eternal vigilance, and Professor Lister dwells strongly on the care necessary in all the dressings and examinations. The spray-producing apparatus is run about the wards on wheels, and, so well trained are the assistants, its use does not appear inconvenient. Boracic acid is used to some extent, as a disinfectant; it is less irritating than carbolic acid, and apparently as effectual.

I revisited the museums with great interest and profit. The museum of any school, though not a certain guide, is very suggestive of the kind of anatomical instruction given there, and I hope during my holiday to be able to compare those of several cities with one another. The University Museum contains many beautiful injections of the viscera of different animals by the late Professor Goodsir, and also Dr. Pettigrew's magnificent dissections of the nerves and of the fibres of the heart. Would that he had taken warning by Icarus and kept to the terra-firma of anatomical demonstration. The attention of the visitor is called to the skeleton of Burke, that zealous resurrectionist, who, not content with snatching "subjects," presumed to make them, and whose name now enriches the English vocabulary. One or two rooms near the dissecting-room are arranged for the convenience of the students of anatomy. Around the walls, at a convenient height from the ground, is a row of glass cases, each of which contains a bone, or a finely

dissected, ligamentous preparation. There are skulls, both entire and divided, with the bones painted different colors. Each case is made to revolve freely, but so that it cannot be opened or removed.

The Museum of the Royal College of Surgeons, though hardly as interesting as the other, has much that is worthy of notice. Facing the entrance, is the skeleton of an elephant, and perched astride on its shoulders, in the position he occupied during life, is that of his keeper, who was hanged, I forget whether for murder or theft. The taste for the grotesquely horrible appears to linger in the anatomical mind; even Hyrtl could not resist setting up a skeleton Laocoön, snakes and all. There are here many arterial injections of great merit, perhaps the most interesting of which is one of a leg after ligature of the femoral artery, showing the reëstablishment of the circulation. In the Museum of Science and Arts hangs the skeleton of Dr. Knox's celebrated whale. It is not very perfect, and neither very correctly nor elegantly mounted, but it is very impressive from its great size. T. D. JR.

CHATTANOOGA, TENN., July 24, 1874.

MESSRS. EDITORS,—In your issue of July 16th, in reply to my letter of June 11th, asking your comments on an article from the *Eclectic Journal* on a so-called pathognomonic symptom of smallpox in its earliest stage of eruption, you reply, "We are not aware that this is in any way new." If you allude to the statement contained in the clipping, I agree with you perfectly; but if your comment is intended as an endorsement of the article, I will venture to say that the teaching therein set forth is as false and deceptive as it is trite, and that the shotty feeling, however acceptable it may be to a wavering mind, so far from being the leading diagnostic symptom in the early stage, is only in exceptional cases serviceable at all. Its presence is confirmatory, but its absence cannot be taken as evidence that the eruption is not that of smallpox, notwithstanding Tilbury Fox says:—"These spots are, in the very outset, small papules, red, hard and pointed." I have great deference for the opinions and teachings of Fox, but I have seen cases enough to enable me to speak with confidence in which the eruption, when first discoverable, was as free from the characteristic hard feeling as that of scarlatina. The first case of the kind I observed was that of a boy ten years old. I would have pronounced it smallpox at first sight, but had been accustomed to confirm my diagnosis by touch (a very unnecessary practice), and consequently was much surprised to find the skin so smooth. It proved to be a case of confluent and hæmorrhagic smallpox, terminating in death about the fourth day. The next case was that of a girl about a year and a half old, who had been vaccinated about six days before the onset of the disease, but who had been constantly in the room with her father, who was well broken out before her vaccination, which was making good progress, but of course was too late. She died about the third day of the eruption. Since that time, I have studied this point very closely at every opportunity, and have found the hardness wanting at the outset in a very considerable proportion of cases; and, for aught I know, it may have been wanting in every case at the very beginning, since I had not opportunities of determining. Be that as it may, the hardness very soon appears. Flint says:—"At first it appears in the form of small red spots or specks, sometimes having a purplish or livid color. It is now a maculated eruption. The central part of the *maculæ* becomes hard, slightly elevated and pointed. A change has taken place from a maculated to a papular eruption." It will be observed he distinctly states that the maculæ *become* hard. Here is a plain contradiction to Fox's statement, but Wood speaks of the eruption at its first appearance as consisting of "bright red specks," and further on says:—"On the third or fourth day, the pocks are distinctly formed, being round and flattened on the top, in the centre of which is often a little depression, giving to the eruption a characteristic umbilicated appearance. They are now hard to the touch." The last sentence unequivocally implies that the "bright red specks" are not hard,

and the fact that the author mentions the hardness only after speaking of the umbilication, shows plainly how little he values the former as a diagnostic sign. Watson does not allude to it at all, nor is it strange, since the great desideratum is to make a diagnosis earlier than the hardness appears, and after it has appeared other signs are amply sufficient without it. In light cases of varioloid, this sign is of unquestionable service when the pimples are few and the constitutional disturbance is slight or wanting; but, in ordinary cases of smallpox, the locality of the first eruption and its visual appearance, together with the rational symptoms, are so unmistakable that any but the merest novice may make a diagnosis with the utmost confidence at the period when a decision is most imperative, so that what the *Eclectic Journal* calls "an unfailing diagnostic symptom" is of no special importance in the generality of cases, and only occasionally useful in mild cases of varioloid and anomalous cases of smallpox. Very respectfully yours,

J. S. BURNS, M.D.

Medical Miscellany.

ACCORDING to the *Richmond and Louisville Medical Journal*, the Convention of Confederate Surgeons, held on the 21st of May, at Atlanta, was not a success, Georgia being almost the only State represented. Dr. S. P. Moore, the Confederate Surgeon General, was elected President. The next meeting is announced to take place in Richmond, July, 1875.

TWO BOSTONIANS MAKE A SUCCESSFUL ASCENT OF MONT BLANC. —Dr. J. B. Ayer, and Mr. W. O. Mosely (student in medicine, and a veteran traveller), both of this city, are spending their vacation in a pedestrian tour through Switzerland; and, on July 7th, they made a successful ascent of Mont Blanc. Leaving the Grands Mulets at 1 o'clock, A.M., with clear skies, and fortified by strong coffee, the tourists were roped to the guide in front, and porter in the rear, at distances of fifteen feet apart. The guide, lantern in hand, sounded every suspicious place with his stock. In the rarefied atmosphere, they suffered from intense thirst, which snow and ice would not quench; but they found great relief from Tyndall's suggestion of chewing prunes and raisins.

At 3.30, the sun put in an appearance, and a glorious sunrise! The snow, in places, was two and three feet deep. The Dome der Goutè was at length reached, and afterwards the Grand Plateau, when breakfast was taken, at 5 o'clock. The view of the "needles" was grand beyond description. A long and wide crevasse, which could not be crossed, was cautiously approached by each individual on hands and knees, and a look into the unfathomable abyss below, lined with clear blue ice, was indulged for a moment. One of the party felt slight exhilaration, and afterwards nausea, but no giddiness.

Occasionally resting for five minutes, the final stretch was one hour and seven minutes, when the party reached the summit, in fine condition. Approaching the top, the roar of cannon was heard, fired from Chamouny, announcing the result.

The view from the summit is not very distinct, save that of Monte Rosa and the Matterhorn; an elevation of 15,781 feet is too high to distinguish lower objects clearly. Temperature, 50° F. The descent to the Grands Mulets was lively, partly, by sliding, and made in 4 hours, 21 minutes, including a stop of 30 minutes.

A Scotchman made the ascent on the second day; and an Englishman arrived at the Grands Mulets for the same purpose, but was taken seriously ill, and obliged to descend next day.

Whilst the tourists were at dinner, at the Hôtel des Alpes, four round of cannon were fired on the grounds in honor of the event, bouquets presented, and a general ovation. This was the 438th ascension, and the 4th successful one made this year.

"THEY DO THESE THINGS MUCH BETTER IN FRANCE."—Last May, at Châteaudun, three venders of a quack medicine were condemned in the Criminal Court—one to three years imprisonment, two to two years, and all three to pay a fine of five hundred francs each. They were convicted in ten instances, in which the total of their receipts had not reached the sum of seven hundred francs. They were tried for *swindling*.

"This is noble!" said I, clapping my hands together.

INCOMES OF LONDON HOSPITALS.—The most wealthy hospitals are the oldest. Bartholomew's, Guy's and St. Thomas's head the list with an annual income each of £40,000. Then comes the London Hospital with an income of £26,000 and vested funds of £200,000. St. George's and St. Mary's have each £15,000 a year. King's College, University College and the Royal Free have each £12,000 a year; the Charing Cross £10,000 and the Westminster £7,000. Of sixteen general hospitals, the returns of fourteen show, in the aggregate, an annual income of £200,000. The incomes of the "special" hospitals depend mostly on voluntary contributions. It is curious to observe that the diseases which attract the most sympathy are those which cause the most suffering. Foremost stand the hospitals for consumption and diseases of the chest, six of these giving a return, as a whole, of £40,947 as the receipts of 1870. The united incomes of thirty-eight special hospitals are £137,000, making, with the general hospitals, a grand total of £337,000 a year.—*British Medical Journal.*

NOTES AND QUERIES.

MESSRS. EDITORS,—"C. E. S." calls attention to the use of castanea vesca in pertussis. A fluid extract, prepared by one of our druggists, has been employed by the writer for several weeks, with satisfactory results. The fluid extract was prepared according to Maisch's formula (vide *American Journal of Pharmacy*, December, 1871). In the *Philadelphia Medical Times*, Dec. 28, 1872, may be found a paper by Dr. Thomas D. Davis, recommending the use of Maisch's fluid extract and giving a tabulated account of the results obtained. F. W. G.

OBSTETRICAL ANÆSTHESIA.

PROF. DEPAUL is reported to have said, at the Academy of Medicine at Paris, that accidents from the obstetrical administration of chloroform are not unknown, and that he is in possession of cases in which sudden death has been produced by it.

DIED,—In this city, Aug. 1st, Surgeon A. N. McLaren, United States Army.

MORTALITY IN MASSACHUSETTS.—*Deaths in fourteen Cities and towns for the week ending July 25*, 1874.

Boston, 157; Worcester, 23; Lowell, 20; Milford, 6; Chelsea, 8; Salem, 10; Lawrence, 12; Springfield, 10; Lynn, 12; Fitchburg, 4; Newburyport, 5; Somerville, 10; Haverhill, 1; Holyoke, 11. Total, 299.

Prevalent Diseases.—Cholera infantum, 63; consumption, 47; diarrhœa and dysenentery, 13.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 1st, 205. Males, 111; females, 94. Accident, 5; abscess, 1; apoplexy, 2; aneurism, 1; inflammation of the bowels, 3; disease of the bladder, 1; bronchitis, 3; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 5; burned, 1; cancer, 3; cholera infantum, 87; cholera morbus, 5; consumption, 16; convulsions, 3; croup, 1; debility, 2; diarrhœa, 10; dropsy, 1; dropsy of the brain, 2; drowned, 2; dysentery, 1; diphtheria, 1; scarlet fever, 2; typhoid fever, 5; disease of the heart, 1; disease of the kidneys, 2; inflammation of the lungs, 6; marasmus, 13; measles, 2; old age, 2; premature birth, 2; peritonitis, 2; puerperal disease, 1; rheumatism, 1; suicide, 1; scrofula, 1; sunstroke, 1; teething, 1; suppression of urine, 1; whooping cough, 3.

Under 5 years of age, 139; between 5 and 20 years, 12; between 20 and 40 years, 24; between 40 and 60 years, 12; over 60 years, 18. Born in the United States, 168; Ireland, 24; other places, 13.

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Original Communications.

SURGICAL TREATMENT OF EMPYEMA.

By HENRY CLARKE, M.D., of Worcester.

Read before the Massachusetts Medical Society, June 3, 1874.

MR. PRESIDENT AND GENTLEMEN,—I ask your attention to a brief consideration of the Surgical Treatment of Empyema. The object of my communication is to call your attention to a very successful method of treatment, which has been, for a few years, extensively practised in Germany and, to a certain extent, in this country; but, so far as I can learn, its value is not, as yet, generally recognized. If I succeed by this paper in contributing something toward popularizing the proceedings here advocated, I shall accomplish my sole purpose.

The surgical treatment of pleuritic exudations is of the greatest antiquity, dating back to the School of Hippocrates, and puncture of the chest has been performed from that time to the present. The method employed by Hippocrates was that of opening the chest through one of the intercostal spaces, either by the knife or by actual cautery, keeping the wound open until the fluid had entirely escaped, and until there was no tendency to further effusion. If the opening had a tendency to close, it was prevented by the introduction of a metallic sound.

It is not, gentlemen, a cause for self laudation, to reflect that after a lapse of two thousand years, we come back to the practice of the Father of Medicine; but such is in fact the case, for the operation now advocated is essentially the same, with only slight modifications. And yet these little improvements in the treatment following the operation have rendered it one of the most life-saving of all the operative proceedings in the whole range of surgery. It is but another illustration of the importance of attention to little things which can alone ensure success in any critical case, either surgical or medical, a lesson which cannot be too often impressed upon our minds.

In the seventeenth and eighteenth centuries, the operation of paracentesis thoracis excited a good deal of attention, and the question of admitting or excluding air from the pleural cavity was warmly discussed, some advocating one proceeding, and some another. The success, however, of either method was so small, and the difficulty of making a positive diagnosis so great, that the operation was rarely performed, and was condemned by the best surgeons, except in extreme cases. The great discovery of Laennec, of diagnosticating diseases of the chest by physical exploration, put a new phase upon the subject. There was no longer so much difficulty in diagnosis to contend with, and Laennec pointed out the indications for the operation

in pleuritic effusions; but he says, "in empyema, it is seldom successful. I have frequently had recourse to it, but have never had any permanent success." Some years later, the subject was again agitated, and prolonged discussions were held in the Academy of Medicine in Paris, and also in other learned societies. Becker, of Berlin, Schuh and Skoda, of Vienna, wrote monographs and treatises on the treatment of pleuritic effusions, in which they adovcated thoracentesis. In England, but little attention was given to the subject. Up to the time of Trousseau's paper upon Empyema, read before the Academy of Medicine in Paris, in 1844, the operation was performed, mainly, as a means of relief when the symptoms were most urgent, and not often as a means of cure. Trousseau's method of operating was by puncture with an ordinary trocar, and then injecting a solution of iodine and iodide of potassium, whether the contained fluid was serous or purulent, and repeating this according to circumstances. In cases where the fluid was serous, he found the operation to be more successful; but with regard to those where it was purulent, he remarks, "even in these cases, the operation renders good service." Trousseau encountered great opposition, but his zeal and eloquence in advocating thoracentesis made a great and lasting impression upon the profession at large, and more especially upon his students, many of whom soon became his disciples. In England, the subject awakened interest, and led to the publication of a monograph, by Hamilton Roe, on Paracentesis of the Chest in Empyema and Inflammatory Hydrothorax. He simply tapped the chest with a trocar, whether the fluid was pus or serum. He took no pains to avoid the admission of air, and considered the result of his experience favorable. In this country, the surgical treatment of pleuritic exudations, as a curative means, received its great impulse from the labors of our own Bowditch. You are all familiar with his mode of operating and his able and zealous advocacy of his mode of tapping the chest without admitting air. But here, again, we had the same operation, both for purulent and non-purulent effusions. Large success has attended his method, both in his own experience and in that of others, where the fluid has been serous; but where it has been purulent, it has not been so successful, and, in my own experience and observation, recovery has been the exception. In some cases, the reaccumulated fluid finds its way into the bronchial tubes, and is there expectorated, and the patient may thus recover. In others, the matter burrows through the passage made by the trocar, and forms an external abscess, which either opens itself, or is opened by the knife. This I believe to be the most favorable result for the patient where he is simply tapped. Some cases of empyema recover after one or more tappings, where neither of the above accidents occur, but this result is not common. There have been, in nearly all periods in the history of medicine, some surgeons who have pursued a bolder method than that of Trousseau, Bowditch and others, and have opened the chest freely by an incision with the bistoury, where the contained fluid was pus.

Goodfellow and De Morgan, in the *Transactions of the Medico-Chirurgical Society*, vol xlii., report some successful cases, in which they made two openings, one between the sixth and seventh ribs, and the other lower down. They passed a piece of drainage tube of Chassaignac through these two openings, and then united the ends,

forming a permanent opening. Their example found but few followers in England, and a large proportion of the cases of empyema there, as well as in France and in this country, continued to be fatal. Not until the recent simultaneous works of Kussmaul and Bartels, in Germany, was the great improvement in the treatment of empyema established. They divided pleuritic effusions into two classes, the purulent and the non-purulent, and claimed for each an entirely different operation. In serous effusions, they simply punctured with a trocar, and removed the fluid by suction, after the method of Bowditch, but in purulent effusions they made free openings. They showed, by a number of observations, that by the latter method of operating, the purulent effusions are almost as amenable to treatment as the non-purulent. Their example was followed by others with like success.

Thus we see, gentlemen, by this bird's-eye view of the history of thoracentesis, that after two thousand years of experience and of prolonged discussion, concerning the expediency of the operation and the method of operating, we come back substantially, so far as relates to empyema, to the simple practice of Hippocrates; that is, to open freely with the knife, and keep the incision open so long as pus continues to collect. We also illustrate, by our success, the wisdom of one of his precepts, "*Ubi pus, evacua.*"

The question as to the appropriate time of operating in empyema is an important one. Shall we operate as soon as we have formed a positive diagnosis, or shall we wait until we are satisfied that the efforts of nature are evidently insufficient to effect a cure? We know that in a certain proportion of cases, recovery takes place. This may be in two ways; first, by absorption, and secondly, by spontaneous opening into the bronchial tubes, or through the outer integuments of the chest. When slightly purulent, the fluid may be entirely absorbed, and even when the pus is quite thick, the fluid portions of it may become absorbed, leaving the morphological elements in a solid or semi-solid form in the pleural sac. This, however, is of rare occurrence.

The recovery by spontaneous opening into the bronchial tubes is more common, and is estimated by von Traube, of Berlin, to be about in the ratio of one to five. This is the most favorable estimate of recovery in this way that I have seen, and I question if the average is as good as this. In some cases, where the pus is thus evacuated, the patient succumbs to the exhausting process. Others die from suffocation. One such case came under my own observation a few years since. Those who do survive, go through a painful and protracted illness. There are other considerations that bear upon the question, as to the proper time of operating. Is there danger of exciting inflammation by operating early? Is the operation attended by more success when performed early, or when delayed as long as possible? Is there any danger in the operation itself which affords a reason for delay? My own limited experience will not justify a definite answer to these questions, and writers are not agreed upon the subject. The majority, however, favor an early operation, and claim for it greater success. The views of these authors are forcibly expressed by Lichtheim, in his clinical lecture, "Ueber die operative Behandlung pleuritischer Exsudate." He says:—

"To the question, when shall we operate, there can be but one answer; as early as possible. As soon as a positive diagnosis of a

collection of pus in the pleural sac is established, proceed without delay to the operation. Through delay in these cases, only harm can come, for the longer the disease exists, the more unfavorable is the prognosis of a complete recovery. He who waits for the subsidence of the fever, will only lose time, and will often, in the end, be obliged to operate while the fever still remains. The fever is only the result of pus in a closed cavity. The best means of allaying it is to let out the pus. To wait, even for the first weeks to pass, in order not to operate during the inflammatory stage, as Kussmaul advises, seems to me unnecessary." . . . "I have operated," he says, "in two cases in the second week of the disease, while there were marked symptoms of inflammation, and in both cases the fever abated immediately after the operation."

On the other hand, the practice of Kussmaul, Prof. Lebert, of Breslau, and others, is not to operate until the acute inflammatory symptoms have subsided. They remove the pus by means of the aspirator, and only resort to free incisions after it has reaccumulated.

In the cases that I am about to report, I pursued the more conservative course, which, in some cases at least, must be also the wiser one. It seems to me that we lose nothing by the delay, and often gain much in the way of the improved condition of the patient. The removal of the fluid by the aspirator gives immediate relief, and the patient at once improves up to a certain point, which is usually reached at the end of a week or ten days. As soon as the patient has ceased to improve, and it is evident that pus is again accumulating, then is the time to operate by free incision.

It may well be asked if this method of removing pus from the pleural cavity by permanent openings is one without limitations. Is it applicable alike to childhood and to old age, to persons otherwise healthy and also to those with tubercular lungs, granular kidneys, or other organic diseases?

The answer may be an affirmative one with this qualification, that, if the patient is so far reduced that he probably would not survive the operation itself, or the shock resulting from it, it should not be performed. Complete recovery is more probable in young persons than in old, for obvious reasons. In phthisical patients, the operation has not only been found, by abundant experience, to be safe, but to prolong life, and to do, what is often vastly more important to the patient, render the remainder of life more endurable.

The presence of pneumo-thorax is not a contra-indication, but often an imperative reason for resorting to the operation.

The diagnosis of the purulent character of a pleuritic exudation is now easily made. We are no longer obliged to depend entirely upon general or local symptoms, such as œdema of the affected side, redness of the skin, hectic fever, chills and night sweats. As soon as there is even a suspicion of the existence of pus, an exploratory puncture should be made with the fine needle of the aspirator, which can be done without danger, and with but little pain. Then we proceed upon a certainty, and not an uncertainty.

Having determined upon making a free opening, the three points to be considered are: First, where to make it; secondly, how to make it; and, thirdly, the subsequent treatment. Dr. Bowditch recommends a point in the back, as low down as possible. Kussmaul, and German

surgeons generally, a point in front, midway between the axillary and mammary lines, and in the fifth or sixth intercostal space. The objection to the point in the back is that the ribs approximate to each other more closely there than in front, and this, consequently, adds to the difficulty of keeping a free outlet for the pus, and also to that of inserting instruments of sufficient size for washing out the cavity. There is another, still greater, objection to this point, in some cases, which is that it obliges the patient to sit up, either in bed or in a chair, during the operation, and at each use of the syringe in washing out the cavity. Some of the patients that I have operated upon could not, I am confident, have endured the exhaustion which this would have occasioned. Some, indeed, were so weak as to be unable even to raise the head. How much less able would they have been to sit up once or twice, daily, for ten or fifteen minutes. The only advantage of the point in the back is that the opening can be made lower down, with safety, than it can be in front, and the lower the outlet for the pus the easier it is to keep the pleural cavity well cleansed, and to prevent decomposition. It must not, however, be forgotten that it is possible to select a point too low down for subsequent convenience. When the walls of the chest contract and the diaphragm ascends, which takes place in the course of recovery, the opening may be closed, or, at least, the passage of instruments rendered more difficult. The advantages of making the opening in front are, that there is more space here between the ribs than there is behind, and that the patient can recline in bed during the operation itself, and also the subsequent dressing of the wound and washing out of the pleural sac. My advice upon this point of selection is that, for patients greatly reduced in strength, it is much better to make the incision in front, and for those able to sit up in bed, it is better to make it in the back.

The opening by the knife may be made in two ways: first, by thrusting it, at one stroke, through the skin and underlying integuments into the pleural sac, and then cutting, either to the right or left, to the necessary extent. Secondly, by making an incision through the skin, about two inches in length, and then dissecting down to the pleura. After this, a puncture should be made with the knife, just above the upper edge of the lower rib, and an opening made at once, corresponding in size to the one in the skin. In this way, there is no danger of wounding the intercostal artery, which has been one of the bugbears in paracentesis thoracis. Such a large opening would seem at first unnecessary, but experience teaches the contrary. The diseased side of the thorax soon contracts, and the intercostal space becomes smaller in consequence of the approximation of the ribs and the healing of the soft parts at each angle of the wound. The contraction of the opening is the most troublesome difficulty that we have to contend with in the subsequent treatment of almost every case. This has given rise to various contrivances for the purpose of preventing the closure of the passage before the pus-secreting pleura has healed. Time will only allow me to mention some of them. Both single and double canulæ, constructed for the purpose, have been frequently used, but they are apt to cause irritation and pain. Rubber tubing, *tubes de drainage*, or a piece of gum-elastic catheter, have been and still are employed, but they have often proved unsatisfactory. I have found it difficult to keep them in place until quite recently.

My present method of using them will be explained in the report of my cases. Dr. Anstie recommends the practice of Mr. Goodfellow, which consisted, as before mentioned, in making a counter-opening lower down, drawing a piece of drainage tube through the two openings and then uniting the ends. This is done by passing a long, bent probe, armed with silk, through the opening made in the fifth intercostal space to another intercostal space below and behind this, and then cutting down upon the end of the probe. This being done, a piece of drainage tube should be tied to the silk and drawn through both openings. This is said to keep the pleural cavity well drained. This method has been followed by other English surgeons with apparent satisfaction, but I cannot find a sufficient number of cases reported to enable me to judge of its relative merits.

A more recent method still, is that of Dr. W. S. Playfair. He read a paper upon the treatment of empyema in children before the Obstetrical Society of London, which was published last year in vol. xiv. of its Transactions. His mode of treatment is by means of subaqueous continuous drainage. For a full description, see the above article.

There is no one point in the management of any case so important as that of preserving to the end a free outlet for the escape of pus. Nothing has surprised me more than the amount of constitutional disturbance that always results from even a small accumulation of pus in the pleural cavity, after the opening has been made and air admitted. If pus is allowed to remain stagnant, decomposition is sure to take place, and the patient becomes feverish, loses his appetite, and often manifests even alarming symptoms. In one case that I shall report, this change in the condition of things came on very suddenly, almost like an explosion. Whatever we may think of the germ theory in connection with the decomposition of pus, it is certain that the whole system seems suddenly to be poisoned, and the patient lies, it may be, in a state of collapse. The general plan that I have pursued in the management of all my cases has been, substantially, that brought especially into notice by von Kussmaul, of Friburg, and the one now generally adopted throughout Germany. Soon after evacuating the pus, I wash out the cavity with simple warm water, or with a weak solution of carbolic acid. I use a gum-elastic catheter, passed well through the opening, and through this inject the fluid with a Davidson's syringe, or a hard rubber piston ear-syringe. It is better to use quite a flexible catheter, which can be passed deep into the chest, around or behind the lung, without doing any injury. In this way, one can more effectually cleanse the granulating surface of the pleura. Having thus washed out the cavity, I roll a piece of linen into the form of a stopper and press it firmly between the ribs, or I fold a narrow piece of linen into several thicknesses and crowd it in by means of a spatula or large probe. In either way, I first moisten the linen with a solution of carbolic acid. Outside of this, I lay a compress wet in the same solution, and over it a piece of oiled silk, or thin rubber, and then apply the bandage.

The compress is changed several times a day, and I repeat the injections once, twice or three times a day, according to circumstances. Various disinfectants have been tried, but it seems to be generally conceded that carbolic acid is the best. It is better, where the case is obstinate, to change from one to another. I have tried permanganate

of potassa, iodide of potassium and tincture of iodine, and with advantage. In spite, however, of the faithful use of one, or all of them, I have not always been able to prevent the decomposition of pus.

(To be concluded.)

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By Gilman Kimball, M.D., of Lowell.

(Continued from page 136.)

Case VII.—Mrs. B., of Walpole, Mass., a healthy woman 32 years of age, married seven years, no children, observed, during the past year, that she was growing unusually large. For a time, she believed herself pregnant. Her regular menstruation, however, led her to have some doubt in this respect. She called a physician, and he coincided in the idea of pregnancy. He visited her from time to time, never doubting his first impressions.

In due time, she fancied herself taken with regular labor pains, and sent for her physician. He came, and staid with his patient through one entire night and part of the next day. Seeing matters making no very satisfactory progress, he left her, with the understanding that he should be called again upon a return of regular pains. A week after, pains returning, he was sent for a second time. Another night was passed with no better results. In the morning, being obliged to leave on account of important business in a neighboring town, the physician advised sending for some else to take his place. Dr. Fogg, of South Dedham, was called. He discovered no pregnancy, but a large ovarian tumor instead.

I was sent for the following day, and made my first visit to the patient the 3d of March, 1869. I found, as Dr. Fogg had already stated, a large multilocular ovarian tumor which, judging from various symptoms the patient readily called to mind, had been growing, probably, more than a year.

It was now causing great discomfort, chiefly from its pressure upward, and interference with the free action of the lungs; also from constant irritability of the stomach, so that food, however small the quantity, gave distress till rejected. Emaciation and various other symptoms showed a good deal of constitutional suffering.

The case was considered a proper one for an operation, but not till the system had been put in a better condition to endure it. With this view, and to relieve the present distress, I tapped one of the cysts and drew away eight pounds of thick albuminous matter, at the same time prescribing the muriated tincture of iron, fifteen drops twice a day. A note received from Dr. Fogg a few days after, informed me that the patient was greatly improved—appetite good, irritability of stomach wholly gone, and in every respect much changed for the better.

The evacuated cyst re-filled directly, but the general improvement continued.

In order to take advantage of the favorable change before the return of former troubles, it was decided that there should be no unnecessary delay as to an operation.

Proper preparations were made in pursuance of this decision, and I

made my second visit on the 22d of March. Ovariotomy was performed the same day, Dr. Fogg assisting.

The cyst that first presented itself, upon making an opening through the parietes, was very thin, and readily gave way upon being punctured with a trocar; consequently there was an escape of cystic fluid into the peritoneal cavity. The remaining cysts—five in all—were brought forward one after another and evacuated in turn. There were slight adhesions to the parietes in front, also to the omentum. Several shreds of torn peritoneum were cut away after being tied with fine silk ligatures, which were afterwards cut short. The omentum bled at too many points to admit of separate ligatures; it was therefore tied in bulk and cut clean away. The pedicle was small, and of moderate length, tied with a single ligature, and the stump dropped back and the ligatures passed out of the pelvis by the recto-uterine cul-de-sac through a canula.

The stump of the severed omentum was drawn forward and secured between the lips of the incision near its upper angle.

Incision closed with four deep quilled sutures, the everted lips of the incision making a seam four inches in depth and six inches in length. Superficial sutures and outer dressings as usual.

Slight reaction followed the operation. Next morning, symptoms generally favorable; a quiet sleep of several hours during the night; pulse 90; no pain, no nausea; cheerful countenance, and quite hopeful.

On the fourth day, the deep quilled sutures were removed; meanwhile the symptoms were uninterruptedly favorable.

On the sixth day, symptoms of serious trouble: pain in the abdomen, accompanied with distention, nausea and vomiting, quickened pulse, &c.

The nurse in attendance, a woman of rare sagacity in comprehending the special significance of unfavorable symptoms, and equally prompt and judicious in her manner of dealing with them, conceived the idea that probably the cause of the trouble was an accumulation of matter somewhere in the peritoneal cavity, and that relief was to be had only by getting it away as soon as possible. To this end, she passed a female catheter through the incision, at its lower angle, several inches downward in the direction of the left iliac fossa, and drew away eight or ten ounces of thin, fœtid matter. The result of this procedure was immediate relief; all threatening symptoms subsided in the course of a few hours, and from that time onward nothing occurred to interfere with a rapid and complete recovery.

It should be stated, in reference to this case, that for two days following the operation there passed off through the canula a considerable amount of bloody serum. It ceased, however, on the third day, and never returned in any degree afterwards.

A case, similar to the above, occurred some seven years since in New Bedford. Symptoms almost exactly like those already described declared themselves on the sixth day after operation. The nurse in attendance, rightly conjecturing the cause of the trouble, passed a female catheter through the opening occupied by the out-hanging ligatures of the pedicle, and gave exit to several ounces of fœtid matter. Immediate relief followed, all threatening symptoms abated at once, and the patient made a speedy recovery.

In this case, the pedicle was secured by a clamp, and no arrangement was provided for effecting drainage by canula or other means.

In both the above cases, the symptoms following the operation were apparently the same, and results equally satisfactory. Whether the drainage effected by the canula in the first-named case actually contributed in any degree to the favorable result, is of course a matter of mere conjecture. Seeing, however, that the secondary accumulation and retention of fluids in the peritoneal cavity is understood generally to be by far the most common cause of trouble following ovariotomy, it is certainly fair to presume that, in the case in question, the drainage effected by the canula, though very likely incomplete, may have been of essential advantage in securing a successful result. At any rate, the plan of drainage, as above described, can never be objected to on the score of its being attended with difficulty or risk. Moreover, it never occasions any irritation or discomfort of any kind to the patient.

In many cases of the simplest character, for example, its adoption may be of no special benefit; in others, however, especially where secondary accumulations are almost certain to occur, its advantages would seem to be too obvious to admit of any question.

It will be observed that the symptoms occurring in these two cases were strikingly characteristic of septicæmia; but, fortunately, the cause of mischief was confined within a comparatively small space; it was also so located that by the use of proper means its removal was readily effected. More frequently, however, I have noticed that these symptoms make their appearance more insidiously, and give warning of their appearance at an earlier period after operation. In such instances, it may be calculated that inflammation has invaded the peritoneum to an indefinite extent, and that the poisonous product resulting therefrom has no distinct limits, but is so diffused that its removal can rarely be effected to such a degree as to enable the system to withstand its poisonous effect. Merely making an opening through the incision at any one point, under such circumstances, will avail little or nothing in dislodging the fluid confined within the peritoneal cavity, and the only possible means now remaining for saving the patient from fatal septicæmia consists in the washing-out process first suggested, and successfully practised by Dr. Peaslee, of New York. In three instances, I have seen satisfactory results from this practice. More frequently, however, it has failed entirely.

(To be continued.)

PHANTOM TUMORS OF THE ABDOMEN.—There is often some little difficulty in diagnosticating phantom tumors when they occur in the abdominal muscles. They are sometimes large, hard, and nearly fixed in place, size and form; and they may be deceptively complicated with disorderly states of the intestines, or the aorta, or other abdominal or pelvic organs. But in any case, however difficult the diagnosis, the use of ether or chloroform will decide the matter at once. With complete insensibility, all signs of tumor vanish.—Sir J. Paget, *Lancet*, Dec. 13, 1873.

THE number of medical students in the Vienna School was this year 963, of whom 379 were Hungarians. Breslau had 170 medical students, and Berlin 299.

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. Hayden, M.D.

[Concluded from page 141.]

New Experiences with Substitutes for Breast Milk.

Hennig (*Jahrb. f. Kinderheilkunde*, vii. 1; *Allg. Med. Central Zeitung*, Jan. 31, 1874).

The author explains the different ways in which cow's milk becomes changed so as to affect the child injuriously. In the institution over which he has charge, he has never been compelled to resort to any other substitute, the milk being supplied from a model-farm in the neighborhood of Leipzig. He attributes this entirely to the kind of food the cow receives, from which the milk for the infants is taken; this being, exclusively, hay, bran, chopped straw, and a little bruised grain. The milk of this cow showed, always, an alkaline reaction. A milk showing an amphoteric reaction comes from cows that are fed with substances not calculated to produce good milk. Such substances are: Rape-cakes, which contain an ethereal oil, and, in case it has become rancid, a fatty acid that passes into the milk. Beer-grounds are often given in large quantities as fodder; this does not give up alcohol to the milk, but diminishes the metamorphosis of tissue of the animal, and often makes it sick. Potatoes are not good for fodder, often causing diarrhœa, and when given in large quantities, moreover, in late spring, may cause solanin to be present in the milk. The author saw obstinate intertrigo and impetigo very frequently in children that received their nourishment from cows fed on the latter substance. Turnips are likewise improper food for cows. The principal food should consist of a soft, sweet, dry hay; also straw, rich in earthy matters and silicic acid, especially millet and clover-straw; in the winter, in addition, bean-groats.

The milk should be given to new-borns for the first eight days in the form of sweet whey, or in a dilution of one part milk and three parts water, with the addition of milk sugar, and when the bowels are constipated, with a little bicarbonate of soda. From the eighth day, a mixture of one part milk and two parts water should be given. After six or eight weeks, the milk should be mixed with equal parts of water, and the milk sugar omitted. When near the period of teething, the water should be but one-third of the mixture, and gradually diminished until we have the milk pure. The author has never seen any harm from giving breast-milk and cow's milk at the same time. After the fifth month, a little meat broth should be given, but no addition of oatmeal or of cracker until after six teeth have appeared.

Such a milk as is furnished the author's institution is often absolutely impossible to obtain in large cities, and other substitutes must be made use of, of which the following are worthy of consideration:—

1. Egg-drink, consisting of 200 grammes of boiling water, which, cooled down to 37° C., is stirred up with the fresh white of an egg, and seasoned with salt. To this mixture is added, later, the yellow of an egg, in gradually increasing doses. This preparation is particu-

larly well adapted as an addition to a weak broth during teething, and should be given once or twice daily.

2. Concentrated milk, which, however, owing to the very large amount of sugar contained therein, out of all proportion to that found in the mother's milk, often occasions diarrhœa.

3. Liebig's food, in the form of extract; one part is to be dissolved in warm milk, previously boiled, and, at each time of administration, to be diluted with an equal quantity of water. After the third month, dilution should be gradually less and less. With this food, however, sometimes the children do not thrive, and vomiting and diarrhœa are caused. This is easily explained, when we remember that cow's milk is given with it. Great value is attached to:

4. Nestlé's infant's meal, in which a good Swiss milk in concentrated and dry form is added to the other ingredients. For very young infants, the proportion should be one table-spoonful of the powder to ten of water; for older ones, one to eight. To obtain a milk-pap, one spoonful of the powder should be stirred up with six spoonsful of cold water, and then boiled for a few minutes. This pap is suitable only for children with several teeth. The author has rarely seen any diarrhœa supervene upon the use of this powder, and never abscesses of the skin, or intertrigo.

5. Finally, the author has, in three cases, used a very finely divided mixture of leguminous and cereal meal, of Hartenstein, in Wiederwiesen. Of this, a dessertspoonful is slowly stirred up in a soup-plate full of cold water, and, with the addition of a little salt, heated to the proper temperature.

The Cure of Croup without Emetics.

Dr. Hermann Klemm, Leipzig *(Jahrb. f. Kinderheilkunde* N. V. vi. 4, p. 372, 1873; *Schmidt's Jahrbuch*, No. 10).

Emetics are only useful, as is well known, in the earliest stages, when we cannot be certain if we have to do with false or true croup. An emetic in such case removes spasm of the vocal cords and of the neighboring parts; if given again, later, with the expectation of loosening membranes, they are generally of no effect, or if vomiting is produced it does not loosen the membrane, and the child is unnecessarily weakened. The author saw in four cases decidedly beneficial results from Priessnitz's treatment, which Hanner already previously recommended. One of these cases, reported in full, appears to have been a severe case of true croup, but there was no microscopic examination of the thick, yellow, muco-purulent expectoration that followed later. The author recommends strongly in these cases the cold-water treatment, and gives the following cautions in using it. The child should not be carried about, as this prevents the sufficient amount of sweating. The child should be subjected early to the wrappings, to prevent carbonic acid poisoning of the blood taking place, and we should resort to this immediately after producing vomiting, if this have not been followed by improvement, or if vomiting be not produced. The wrapping is to be repeated every two hours. As local remedies, the author uses, in addition, inhalations of lime water, or of a solution of chlorate of potash. Local applications of nitrate of silver are not recommended, especially as it is very difficult with children to introduce a brush into the larynx with the aid of a mirror, and any other

method would be of no use. Small doses of morphine relieve the difficulty of breathing, and should, therefore, be given, even in fatal cases. The author is silent on the relief afforded by tracheotomy in such cases.

A Case of Belladonna Poisoning.

Dr. Ludwig Fleischmann reports the following case in the *Wiener Medicinische Presse*, April 5, 1874, No. 114.

For the patient, a young girl six years old, affected with bronchial catarrh and a very troublesome, dry cough, a two-ounce mixture, containing six drops of tincture of belladonna, was ordered, the whole to be taken in the twenty-four hours. After the third dessertspoonful, the child's pupils became dilated, the eyes had a wild, staring look, and the patient became very restless and delirious. The head was rolled about, and the patient acted as if she saw figures in the air, with which she wished to speak. At the same time, there were violent movements of the hands and fingers, and frequent pickings at the bedclothes. The face was red, and, owing to pain in the throat, the child refused to take drink. The proper antidotes were administered, and the next day there were no symptoms remaining, save the dilated pupils and redness of the cheeks. A careful chemical analysis of the remainder showed no reason to suspect that the prescription was improperly put up. In this case, therefore, the symptoms of poisoning were produced by two drops of the tincture. Reckoning the proportional dose for a child of this age to be one-third, and the maximum dose for an adult to be twenty-eight drops, three or four times a day, a single dose for this child would be nine drops. According to the Austrian pharmacopœia, the tincture is prepared stronger, and the maximal dose should be four to six drops thrice daily. Little anxiety is needed in prescribing belladonna for children, who, it is well known, tolerate this medicine, as a rule, well, in large doses. Many cases of poisoning with the fruit of this plant, eaten in very large quantities by children, have been reported where complete recovery took place, and it is not rare to prescribe it in good-sized doses, much beyond the physiological dose, in whooping-cough, without producing its poisonous effects. The author has himself seen ten drops of the tincture given within twenty-four hours in severe cases of laryngo-spasms without unpleasant effects, and still more frequently are large doses of the extract given. The above case is of particular interest, owing to the small dose of two drops producing for a short time very characteristic symptoms of poisoning, and also to the accumulative action of the medicine, which, given in divided doses every two hours, produced symptoms of poisoning within seven hours after the first dose.

Poisoning by belladonna, considering the frequency of its administration, is rare, and the most frequent cases are those where the berries have been eaten. Schroff relates a case where smoking the dried leaves was the cause of fatal poisoning. Owing to the more and more general use of atropine internally, the cases of atropine poisoning are more frequent. In the present case, we are forced to assume a peculiar susceptibility in the organism of the patient, which susceptibility was increased by a febrile disease, and a nervous irritability in a nascent state.

Chloroform in Eclampsia Infantum.

C. F. Kunze *(Allg. Med. Central Zeitung,* April 1, 1874, No. 26).

In by far the greater number of cases of convulsions, we are unable to detect the cause, and it is a well-established fact that such convulsions can take place without important organic changes being present. The conditions causing the convulsions pass rapidly away, and it is not even necessary that there should be any cerebral congestion. In all probability, we have to deal with an abnormal irritability of the nervous system. As proof of this, we find no increased temperature of the head, no injection of the bulb of the eye, no vomiting; there is no constipation, and no inflammatory pulse.

The author reports the following case: M. R., 11 years old, stout built girl, had, in her fourth year, a sickness, in which she had an attack of eclampsia infantum. The attack lasted two or three hours, and ceased after the administration of a stimulating enema and cool applications to the head while in a warm bath. No bad effects were left behind.

January 16, 1874.—Without known cause, was found unconscious, with general convulsions. The author being called, ordered three leeches to forehead, enema of salt and water, and an ice bladder to the head, although he found neither increased temperature of the skin nor of the forehead, and the child had had a regular operation the day before. No errors of diet had been made, the abdomen was soft, and there was no where tenderness on pressure. The pulse was 120–130 in the minute, and not particularly hard. At his second visit, four hours later, the leeches had drawn, and there had been a dejection; the head was cool, and yet the convulsions had not ceased. As the child had become cyanotic, and the lips were blue, and the respiration very rapid, with tracheal râles, the present condition having lasted eight hours uninterruptedly, it was expected that death would soon ensue. An attempt was then made with chloroform dropped upon a handkerchief. The convulsions ceased after a few inhalations, but consciousness did not return. The handkerchief being removed, the convulsions returned after a few minutes, and the chloroform was reapplied with equally good result, though but for a short time. Being then applied for double the time, the convulsions stopped for a quarter of an hour. With the next return, the application was carried to full narcosis. The child then began to breathe more slowly, the pulse went down to 100, the tracheal râles diminished, the blue lips became red, as well as the cheeks, and after half an hour the child opened its eyes and returned to consciousness. After that, there was no return of the convulsions. At the evening visit, the child was somewhat excited, but otherwise there was no disturbance of any kind. A solution of bromide of potassium (5.0 grammes ad 120.0 grammes water) was prescribed, and since then (six days afterwards) there was no return of convulsions, and the child was apparently in complete health.

Resolutions eulogistic of the character and labors of the late Dr. George Derby have been passed by the State Board of Health of Michigan, and the State Board of Health of California. These testimonials from such distant States are a significant evidence of the far-reaching influence of Dr. Derby's enthusiasm and ability in the department of science which he loved so well, and in which he worked so faithfully.

Bibliographical Notices.

Lunatic Hospital Reports.

We have before us reports from Dr. Roy, of Quebec, Dr. DeWolf, of Halifax, Dr. Bartlett, of Minnesota, Dr. Kirkbride, of Philadelphia, Dr. Brown, of Bloomingdale, N. Y., Dr. Sawyer, of Providence, Dr. Jelly, of the McLean Asylum, and Dr. Walker, of the Boston Hospital.

These reports deal for the most part with affairs of local interest, and make no attempt to include matters of importance to the profession. This policy seems to be justified by the official character and limited circulation of the reports, as well as by the overwhelming amount of work usually devolving on the meagre medical staff of our insane hospitals. When a superintendent does find time to include a little of the result of his experience in a report it is doubly welcome.

Dr. Kirkbride discusses and approves the unanimous resolution of the Association of Medical Superintendents of American Institutions for the Insane, at their meeting last year, in regard to the care of criminal lunatics. The gist of it is that such criminals as become insane should be cared for in wards attached to a prison, or independently situated, and not in the existing State hospitals.

Dr. Roy has some interesting statistics and remarks on intemperance as a cause of insanity, and opposes the separate treatment of the so-called incurables.

Body and Mind. By Henry Maudsley. Second American Edition. New York: D. Appleton & Co. 12mo. Pp. 275.

The second London edition of this now familiar book, and identical with the one in hand, was noticed in the Journal, Nov. 13, 1873, at sufficient length to give the reader an idea of its value, not only to the profession but to the public. The subject, under Maudsley's treatment, becomes of general interest, and the book, though thoroughly scientific in spirit, is in active demand outside of medical circles. Four lectures constitute the first part, carrying the reader logically upward from the lowest evidences of intelligence in the animal kingdom to the highest, from reflex action to the organization of conscience. The second part consists of four essays: on Hamlet, Swedenborg, The Theory of Vitality, and The Limits of Philosophical Inquiry.

The Physiology of the Circulation in Plants, in the Lower Animals, and in Man. By J. Bell Pettigrew, M.D., &c. London: Macmillan & Co. 1874.

In the work before us, the author aims "at producing a comprehensive view of the circulation as it exists in the lowest vegetable and highest animal forms," endeavoring "to prove by a variety of arguments that the circulation, whenever and wherever found, differs less in kind than in degree," and that "the circulation in the lower vegetables and animals gradually developes into that of the higher, until we reach man himself; the circulation in the one being relatively as perfect as in the other."

In pursuance of this object, the author describes the circulatory system in a variety of plants and animals. Where original anatomical investigation forms the basis of these descriptions they are, as a rule, clear, accurate and minute, and constitute the really valuable portion of the work. The description of the muscles and nerves of the heart may be quoted as an example. But where function is to be inferred from structure (for it is in this way, and not by experiment, that most of Dr. Pettigrew's physiological ideas have evidently been obtained), the author's ignorance of physics and disregard of logic render his work entirely untrustworthy, and, in the hands of beginners, absolutely mischievous.

The fundamental idea which runs through the whole volume is, that the

so-called relaxation of a muscle is as much an active process as its contraction, and that the cavities of the heart, therefore, in dilating, fill themselves by suction. No experiments are offered in support of this view, and the experiments of others, which are inconsistent with it, are ignored. There is no allusion, for instance, to Kühne's experiment showing that a muscle, lying on quicksilver in order that it may not have even its own weight to support, retains very nearly its contracted form even after the removal of the stimulus which has caused contraction. The fact that there is no theoretical reason why the sarcous elements should not change their form in one direction as well as in another seems, for the author, to be a sufficient reason for concluding that both lengthening and shortening are active processes.

The volume abounds in statements without proof and in defective syllogisms, and were it not for a certain amount of good anatomical description and some ingenious suggestions of analogies, the work would hardly repay perusal. H. P. B.

Archives of Electrology and Neurology: A Journal of Electro-Therapeutics and Nervous Diseases. Edited by GEORGE M. BEARD, A.M., M.D. Vol. I. No. I. May, 1874. New York: T. L. Clacher, No. 107 East 28th Street.

THIS is a handsome octavo of 143 pages, of which 115 are devoted to original articles. Its aim seems to be mainly clinical, and to be limited almost entirely to the explanation and illustration of the physiological and therapeutical actions of electricity. Viewed in this aspect, the *Archives* present a valuable and interesting group of contributions to medicine. We are particularly pleased with articles on Electrolysis of Scirrhus of the Rectum, by Prof. Crosby, of New York, and on Paralysis of the Recurrent Laryngeal Nerve, by Dr. Knight, of Boston. The remarks on Electrolysis of Stricture of the Urethra are diffuse, and are not quite clearly made, but appear sound and reasonable. Dr. Beard's description of his method of treating the base of malignant tumors is clear, and worthy of attention. Roberts Bartholow gives a fuller account than has yet been published of the experiments he made in stimulating the brain of a living woman. To physicians desirous of learning more about the medical electricity of our day, the *Archives* will be very interesting. A second number is promised in six months.

BOOKS AND PAMPHLETS RECEIVED.

Inorganic Cardiac Murmurs. By A. D. Keyt, M.D. Cincinnati. Read before the Ohio State Medical Society, June, 1874, at its Annual Meeting in Toledo.

The Psychological Journal has re-appeared with the title of the Psychological and Medico-Legal Journal. It is edited by Dr. Hammond, assisted by Dr. T. M. B. Cross. The style and binding of the Journal are new and tasteful, and the contents of the first number interesting.

Messrs, Wm. Wood & Co. announce the translation of a Cyclopædia of the Practice of Medicine, edited by Dr. H. von Zeimssen, Professor of Clinical Medicine at Erlangen, assisted by the most eminent clinical instructors of Germany. The translation will be done by professional gentlemen, many of them former students of the writers of the different treatises. It is proposed to publish three or four volumes a year in order to distribute the cost of subscription equally over four years.

Essays on Conservative Medicine and Kindred Topics. By Austin Flint, M.D. Philadelphia: Henry C. Lea. 1874.

The Physiology of Man. By Austin Flint, Jr. M.D. New York: D. Appleton & Co. 1874. (For sale by James Campbell.)

Transactions of the Eighth Annual Meeting of the Medical Association of the State of Missouri, held at Sedalia, April 21, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, August 13, 1874.

Who is to blame for the abominable crimes of the day? The government, encouraged or bullied as it is by the mistaken and false philanthropy of the day. "Thou shalt not commit murder" is held up as the commandment to Governors and Councils as a positive reason for pardoning crime, and the consequence is a dozen murders by those who know, or who calculate, that punishment will never overtake them As we have before intimated, it is our opinion that insane people, as a rule, know enough to restrain themselves, when everyone else knows that certain results as punishment will surely follow certain causes. The insane man, who is deprived of clothing because he tears it up, learns to restrain his temptation to tear, and if his insanity be so positive and so incurable that he cannot refrain from taking life, the sooner he is put where he is past temptation the better.

What is punishment for? We are told, to reform the bad and to protect the public. Is the punishment established by the laws too severe? If so, abolish the laws or modify them; but let us know if we have got to go from our houses armed for our own protection, which the law refuses us! Within a few weeks, the Governor of Maine has deducted from the sentences of various prisoners an average of one hundred and fifty days, variously ranging from eighteen to four hundred and sixty-nine days. This was for good conduct in prison; an absurd, a wicked reduction, if the original sentence was just. It is simply an offer to others in prison to behave well long enough to get out of prison to begin crime again.

The Lieutenant-Governor of this State has done worse than that. He has pardoned Thomas R. Stackpole, who was sentenced to twenty years imprisonment for attempting to commit rape; and he has pardoned Michael Carty, who was sentenced for life for committing rape; and he has pardoned William R. Scott, who was convicted on the charge of inducing a girl to commit suicide, and *no cause is assigned for the pardons.* Were these all pardoned because they have become good men and true? Or were they insane? Or what? The public will not always consider the plea of insanity a good excuse for crime. It is almost time for government to protect the victims, as well as the subjects, of insane impulse. The public must, sooner or later, see the absurdity of trial by jury, when juries are made up as they are to-day, and where it is only necessary to plead insanity as an excuse for the vilest of criminals. The better class of New York citizens may soon-

er or later be tempted to imitate the San Francisco vigilance committee. If kidnapping and murder are to be as common as is promised, Philadelphia and Boston will not be long behind them.

At a meeting of the Commissioners of Charities and Correction in New York, held during the last week in July, a resolution was introduced and passed re-organizing the Medical Board of Bellevue Hospital. This Board consists of nineteen members, twelve of whom have been removed from their positions by the terms of the resolution referred to. The names of these gentlemen are as follows:—Drs. Isaac E. Taylor, Lewis A. Sayre, John J. Crane, John W. S. Gouley, B. Fordyce Barker, Frank H. Hamilton, Alexander R. Mott, Thomas M. Markoe, Austin Flint, Jr., Wm. M. Polk, Wm. T. Lusk, and E. G. Janeway. Of these, Drs. Crane, Sayre and Taylor have been members of the Board for twenty years, and the majority of the others from five to fifteen years.

One would naturally suppose that the Commissioners had been influenced only by the most weighty reasons in taking such unusual and extraordinary action in regard to the Hospital appointments. Thus far, however, no reason whatever has been assigned by them for this change. This action on the part of the Commissioners will seriously cripple the corps of instructors at the Bellevue Hospital Medical College, and, if persisted in, may result in the destruction of the School. It is darkly intimated that professional jealousies are at the bottom of this movement, and that the brilliant and rapid success of this school has made it altogether too dangerous a rival to older seats of medical learning. We can hardly believe that the profession of New York will countenance any such movement as that which has been hinted at, and we shall hope to hear that the force of medical opinion has induced the Commissioners to see the propriety of reconsidering their action.

Some of the legitimate results of the late hydrophobia excitement in New York are now beginning to make themselves apparent, and offer forcible examples of the evils that may arise from the injudicious efforts of an enterprising press to afford entertainment to its readers during an unusually dull season. We learn from one of the New York papers that a member of the police force of that city was recently bitten by a dog, and after a short period of incubation, during which the man was in an unusually depressed and nervous state of mind, symptoms of hydrophobia began to show themselves. The unfortunate patient was immediately subjected to various tests, and some of the new and infallible modes of treatment lately discovered in New York were planned for him. Fortunately—for the patient—his case has turned

out not to be hydrophobia, and the poor creature has been allowed to return to his home from the Park Hospital, whither he had been sent the day previous.

Cases of hypochondriasis, of which the above was perhaps a more striking example than usually occurs, are, unfortunately, but too frequent in times of hydrophobia excitement like that through which New York has lately passed, while at the same time it is, to say the least, somewhat doubtful whether the disease has been unusually prevalent, the character of many of the so-called cases of hydrophobia being extremely uncertain.

The entertainment and instruction which the New York public has received from enterprising reporters, and, we regret to say, from certain members of the medical profession, can hardly compensate for the agony of mind endured by a number of unfortunate hypochondriacs during the weeks which have followed this excitement. The canine species can also well claim a share of our sympathy at this time. The way in which many slightly indisposed members of this race have been either chased, muzzled, shot or asphyxiated (by a process said to be ingeniously cruel), and the dental operation to which it is proposed to subject their more fortunate brethren, are all symptoms but too suggestive of the hysteroid condition of the public mind.

It is a pleasing contrast to turn from these accounts to the timely work on Rabies and Hydrophobia, by George Fleming, an English veterinary surgeon, a notice of which has lately appeared in the *British and Foreign Medico-Chirurgical Review.* The author's suggestions in regard to the general plans of prevention which ought to be adopted by local authorities in reference to hydrophobia, although not novel, are sensible and interesting in this connection. In addition to taking due care of the health of dogs when employed for useful purposes, he recommends the diminution of the number of useless dogs, and especially in the case of dogs kept by poor people, "both on the ground of the propagation of disease by ill-fed and dirty creatures, and also because the consumption of food required for their maintenance represents so much aliment substracted from the poor people themselves." The keeping of pleasure dogs by the rich is strongly condemned, and to lessen the number of these pets he suggests the imposition of heavy taxes. By some such precautions as these, continually and stringently kept in force, we might be spared much fear and excitement on the part of the community, and periodical slaughters similar to the one we have recently witnessed.

The Massachusetts Railroad Commissioners did an excellent thing recently in urging the discontinuance of the use of the locomotive

steam whistle on the lines of railway leading from the city, exception being made only in the case of emergency, as a danger-signal. Aside from the annoyance which the locomotive shrieks have caused to people in health in the thickly settled districts through which some of the roads pass, the distress and permanent injury inflicted on invalids by what is shown to be an unnecessary practice, should have long ago caused this peculiarly American institution to be numbered among the half-forgotten barbarisms.

Correspondence.

Professor Schiff Vindicated.

Messrs. Editors,—Various reports, accusing Prof. Schiff, the eminent physiologist, now in Florence, of unnecessary cruelty in his experiments upon living animals, have appeared in some of the European and American journals within the last year or two. For those who know Prof. Schiff personally, no refutation or denial of these reports is necessary. Those who know him only as an accomplished and eminent physiologist, who has added largely to the physiological knowledge of the present day (and consequently to the relief of human suffering), will be glad to learn from the subjoined communication that no cruelty or unnecessary pain has been inflicted by him in his scientific investigations.

Dr. William Wilson, from whom I received the following communication, I am happy to say, is known to me personally. He is an English physician, a fellow of the Royal College of Physicians, London, and formerly was physician to the Royal Free Hospital, London. His statements may be accepted without reserve. A natural indignation at the slanders perpetrated against his distinguished townsman pervades his letter.

Very truly yours, Edw. H. Clarke.

A few months ago, some serious charges were brought against Prof. Schiff, the eminent and learned Professor of Physiology in this University, of unnecessary cruelty to animals in the prosecution of his scientific researches; some of these were preposterous and ridiculous, many so much so as to carry with them their own refutation; but, nevertheless, they produced a painful feeling in the public mind. For my own part, I was simply astonished, having worked for many months in successive years at the Laboratory, and having always seen much of the kindness of feeling shown by the professor to the unconscious contributors to physiological science. Now, admitting that some or all the parties who rushed into print were actuated by humane and honorable feelings, the most cursory examination proves that all their statements are grossly exaggerated.

A writer in the *Times* says: "Owing to the temporary absence of counsel, the action which had been brought against Professor Schiff and the municipal authorities has been adjourned;" adding, "no further notice of the trial has since appeared in the Florentine journals;"—then comes a gratuitous assumption of his own—"probably because the point at issue has been privately and amicably settled, and the defendants have pledged their words that the offence shall not be repeated." Now no trial was ever brought against Professor Schiff or the authorities. Prof. Schiff was once summoned before the tribunal as a witness, and his evidence was such that the parties who gave notice of an intended trial not only withdrew it, but the Marquis Capponi wrote a letter to the professor, declaring that he had not charged the professor with the offence referred to, and that it was all a mistake; the first assertion was false, the second correct. The professor's evidence satisfactorily proved that the screams and barking complained of originated,

principally, from his accusers' own dogs; that his dogs, of which there were very few, were excited by this during the night, and during the day by the presence of a number of strange workmen. The correspondent having now established a fact (?) to his own satisfaction, comments on it as follows: "We have not been told whether the German professor has been bidden to desist, or has been simply bound to choose a more quiet locality for his exploits."

A writer in the *Saturday Review* says: "In all great centres of scientific inquiry, Paris, Berlin, Vienna, &c., vivisection has been forbidden, and the professor will surely be given to understand that if vivisection is at all required in the interests of science (about which competent persons entertain serious doubts), it should not be practised without such relief as ether and chloroform afford in all painful operations on the human body, and the German professor well knows that he would be taken to task and punished in his own country." This is a pure invention; the professor always uses chloroform on such occasions, and it is perfectly notorious that there is a Physiological Laboratory in every German University; therefore it is clear that *competent judges* do hold the study of physiology to be of paramount importance to the student of medicine and surgery.

In another communication, Dr. W., a Homœopathic correspondent, says: "During a very long course of study at the Medical School of Florence, I never heard of Prof. Schiff's using chloroform; *he used occasionally to make an aperture in the windpipe, in order to suspend the action of the larynx, and thus prevent the exquisitely tortured animals from crying out in pity.*" The italics are mine. The writer tells us he has studied physiology under eminent and qualified experimenters in France and Italy, yet it never occurred to him that the aperture in the windpipe was a necessary step in the performance of artificial respiration, by which Prof. Schiff has satisfactorily proved that the fatal effect of poisoning from strychnine, curara, &c., may be obviated. When Dr. W. studied in Florence, there were no lectures on Physiology, and no Physiological Laboratory. Prof. Schiff declares he does not know his assailant by sight, and does not believe he ever was in his Laboratory.

Another interesting charge of cruelty and indifference to suffering is brought against the unfortunate professor. The eminent Prof. Desor paid a visit to the laboratory, and took a non-practising medical friend with him, who wrote an article in one of the Italian papers, thus disclosing the secrets of the prison house: "Among the animals was a large dog, from whose left side was hanging an internal organ, either the stomach or a portion of the intestine, the result, probably, of an operation recently undergone." The aforesaid dog did not even belong to the professor, but, in consequence of this circumstance, was retained for some time, and exhibited as a curious specimen of accurate diagnosis. He was the subject of *congenital umbilical hernia.*

The redresser of the wrongs of dogs further says, "the keeper of the Dogs' Home told me that he had made over to the Professor 700 dogs in one year, and I have no hesitation in saying, from past experience (?), that 680 of them were tortured for nothing." Now, during two months that hydrophobia was exceedingly rife at Florence, the police regulation that all vagrant, unmuzzled, ownerless dogs should be seized was stringently carried out, and, during that period, 120 of these were consigned to the physiological laboratory. Now this number is ingeniously but dishonestly multiplied by 6, thus forming a total of 720, as though the epidemic had lasted a whole year. During the months of October, November and December of 1873, 33 dogs were delivered to the laboratory, and following the above mode of calculation, Prof. Schiff only received 132 in the year.

The writer next quotes the Homœopathic axiom, "Physiology never can relieve human suffering, or prolong life; it has never pointed out a single remedial agent for the relief of disease." Again, "Physiology aims at a knowledge of the functions of health, of the formation of healthy states (rather an ambiguous expression), but this knowledge can never suggest a remedial agent." Does the writer mean that no deductions drawn from the study of

physiology ever suggested a remedy? Or is it a mere quibble, on the principle that anatomy never performed an operation? As to repudiating all attention to healthy function as a guide in appreciation of morbid phenomena, how estimate a deranged condition of the circulation unless conversant with the normal state of the pulse? Dr. Fayrer, in India, has made some interesting experiments on dogs to test the statement of Dr. Halford, in Australia, that ammoniacal injections into the veins is a certain and unfailing antidote against the poison of serpents introduced into the human system. The result has been that, whatever the case may be in Australia, it is no antidote whatever against the more virulently poisonous reptiles of India; would the writer contend that no good has resulted from these experiments? Had Dr. Halford's assertions been accepted, without questioning, in India, much loss of life might have resulted therefrom. In the same way many experiments recently instituted have established or controverted the correctness of experiments performed by earlier inquirers; further, Prof. Schiff's assailant would probably maintain that all electrical experiments on healthy tissues would be no guide as to its employment under diseased or deranged conditions of the nervous system.

The *Daily News* declares "that after the great exposures made at Prof. Schiff's trial (there never had been the semblance of a trial), there can be little doubt of the necessity of placing on the practice of vivisection those limits, &c. &c." This is an instance of the practice adopted by these writers of assuming a fact as established, to tally with certain conclusions which they deduce from it. The same journal protests against all experiments in physiology, maintaining that if anything is at all desirable, it could be effected by means of pictures and models, or the dissection of dead bodies!!! It may be observed that thus, after holding Prof. Schiff to public execration for daily and nightly cruelties, they have now addressed a letter to him, of apology, and confessing that the whole thing was a mistake!!! The fact being that upon an inquiry they ascertained that at the period when these accusations were brought against him, Prof. Schiff was not on the premises; in fact, during part of the time, he was in Paris, where he used his influence in inducing some experimentalists to employ ether in cases where it had not otherwise been used; further, a letter was addressed to Prof. Schiff in one of the public papers from several influential persons, stating that they withdrew their names, and expressing their regret that they had signed a paper calling upon the legal authorities to prosecute the said professor, they, upon mature inquiry, having ascertained that those charges were perfectly groundless.

These accusations have had a wide-spread circulation among the travelling American public, who, having read the charges without seeing their refutation, on returning to their native country might innocently express their horror of cruelties supposed to have been perpetrated by a man who is an honor to science and progress. I have therefore thought that a true exposition of the facts might not be misplaced, and would enable members of the profession to express, without hesitation, their disapprobation of such proceedings, and to assure those with whom they might come in contact that the parties promulgating the said charges were not guided by a simple love of truth and justice.

WILLIAM WILSON, M.D., F.R.C.P.

Florence, June 28, 1874.

GUSSENBAURE'S FRACTURE APPARATUS.

VIENNA, July 20, 1874.

MESSRS. EDITORS,—In your issue of June 18, is a slight mention of Dr. Gussenbaure's apparatus for fractures of the upper end of the humerus. Please allow me to make a correction. Extension is not made by "weight and pulley," but, as in Taylor's apparatus for hip-joint, by the key and ratchet principle; that is, the points of extension and counter-extension are connected by a steel shaft. This is formed of two rods, one sliding within the other, and moved by a key, which fits into the cogs on the smaller rod.

As Dr. Gussenbaure says, his splint is the principle of Taylor's hip-joint

apparatus applied to the upper extremity. It is modified to avoid the pressure on the vessels and nerves, which would result from taking the axilla as a point of counter-extension. To effect this, on the upper end of the steel shaft is fastened a steel bow, large enough to encircle the axilla; it can be hooked above to a metal piece, which fits on the shoulder. This is fastened to a gutta percha shoulder-cap, which is held in its place by adhesive plaster and bandages.

The point of counter-extension being the shoulder, the point of extension is at the elbow. Strips of adhesive plaster connect the arm below the fracture to a metal strip, padded, which fits under the point of the elbow (the arm being flexed). This metal strip is welded to the steel shaft applied to the inner side of the arm. The steel bow at the upper end of the shaft is hooked on to the shoulder-piece, the shaft is lengthened by means of the key, and extension is applied.

The steel bow and the metal piece on the shoulder-cap both rotate so that the apparatus can be applied to either side.

In the place of the shoulder-piece, Dr. Gussenbaure has used a light yoke, fitting on both shoulders. It was devised with the idea that it might be required where a great deal of force was needed in extension. He is not, however, sure that it will ever be necessary.

An apparatus is, if I remember, figured in Hamilton's Fractures and Dislocations, something similar to this, differing, however, in that the steel rod is to the outer side or back of the arm. This German splint, though a little more complicated, has, as I think, the advantage of more steadiness, and is, therefore, capable of applying more extension.

In the few cases in which the apparatus has been applied, it is said to have been very serviceable. Yours truly, E. H. BRADFORD.

Obituary.

DR. H. P. BLAIR.

DR. HORACE P. BLAIR died in Georgia, Vermont, July, 14, 1874, in the 76th year of his age. He was the only surviving physician who was in practice in Franklin County forty years ago, except one, the venerable J. L. Chandler, of St. Albans, now in his 82d year. Dr. Blair was a worthy, exemplary man, a kind and judicious physician, a man vigorous and healthy, for one of his years, and bade fair to live to extreme old age. The latter part of April last, he discovered a small, hard tumor on the right lobe of the thyroid gland. It gave him very little discomfort, except mentally, for it was his impression that it would be something that was of a malignant nature, and prove fatal. Three weeks from his first discovering it, he called my attention to it. It was large as a small-sized hen's egg, and of a hard feeling, almost like bone. The tumor continued to grow with great rapidity, causing difficulty of respiration and deglutition, and caused his death in ten weeks from his first noticing it. According to his wish, as well as that of his friends, the tumor was removed after his death, in the presence of Drs. Chandler, Branch and Dunsmore, of St. Albans, and Clark and Knight, of Georgia.

It proved to be a well-developed, medullary cancer, or a large portion of it was of the encephaloid variety; its weight, when dissected out, was one and one-half pounds; some portions were hard, almost cartilaginous, and one portion, of an ovoid form, about three-fourths or seven-eighths of an inch in diameter, appeared to be solid bone, but on further examination a small aperture was discovered, and it was found to be hollow, or rather filled with a cream-like pus. What surprised us was its rapid development and malignancy, destroying a healthy, vigorous man of his years, in the short space of ten weeks. No other disease was apparent. None of the physicians present had ever known so rapid a growth, and so full a development in so short a time, and hope, at least, such cases are not common. R. K. CLARK, M.D.

Medical Miscellany.

Dr. C. F. Folsom, the recently appointed Secretary of the State Board of Health, has returned from Europe, and will enter on the duties of his office the middle of September.

The International Pharmaceutical Congress will be opened at St. Petersburgh to-day. One of the principal questions of discussion will be the formation of an International and Universal Pharmacopœia.

The weather, this summer, in Dublin, is said to have been extraordinarily oppressive, and cases of sunstroke have occurred. This is in marked contrast to the comfortable weather we have enjoyed thus far this season.

At the last meeting of the Massachusetts Medical Society (its ninety-fourth annual meeting), papers of great value were read, and the attendance was very large; larger, it is said, than the attendance at Detroit. Dr. Benjamin E. Cotting, of Roxbury, was elected President. A wiser and better selection could not have been made; the newly-elected President, both personally and professionally, deserving the honor conferred.—*American Medical Weekly.*

The Out-patient System at Lyons.—In Paris, and all large towns of France, there is the same abuse of indiscriminate gratuitous advice at the hospitals as with ourselves; persons, who are perfectly well able to pay, not hesitating to over-crowd the out-patient rooms. Not only do many thus get advice most undeservedly, but the number of patients is rendered so numerous as sometimes to require one hundred to be seen within an hour. At Lyons, the authorities have determined upon attempting to limit this abuse by laying down the rule that no applicant shall be entitled to gratuitous advice unless provided with a recent *certificat d'indigence.—Union Medical*, July 14.

A Word in Time.—"It surely is time," says the *British Medical Journal*, speaking of a vacant office in Edinburgh, "that the system of testimonial-begging, and the highly objectionable attitude of blowing one's own trumpet, which it forces upon a number of excellent and otherwise modest and dignified men of science, should have some check put upon it. . . . A system which is alike degrading and unsatisfactory to the candidate for appointment, to the individuals who are asked to favor him with one of the usual 'puffs,' and to the electors to whom the collection of so-called testimonials is addressed. . . . In Germany, candidates are not even invited to apply, but the members of the governing body address an invitation to the man whom they consider most competent; . . . (here) it is the man of science . . . who adopts the attitude and language of a pill-quack, or of a flunkey out of place, in order to get elected . . . (to expect which is) an insult to the relf-respect of professional and scientific men."

Let the members of our profession look sharply to it that this vile system does not get a foothold amongst us.

A Waterloo Bullet.—The following particulars regarding the bullet extracted from the Waterloo veteran, residing at Wadhurst, Sussex, may be of interest. Cases in which bullets have long remained buried in the tissues, with little or no practical inconvenience, are not uncommon, and Dr. Henry Harland, who extracted the one in question, did not attach any professional importance to the circumstance, apart from the time it had remained, and the historical reminiscences and interest connected with it. The name of the Waterloo veteran is James Jenner, who has reached the good old age of 83. He was in the 44th Regiment, and in the thick of the action near Quatre Bras, when he was struck in the hand by a French bullet, which, having passed through the fleshy part of the ball of the thumb, became imbedded in the palm of the hand, where it remained for upwards of fifty-nine years.

The contraction and thickening of the palm made it difficult for him to hold his agricultural implements, and about three months ago, whilst working as a gardener on some hard ground, the hand inflamed and an abscess formed, from which a ball was removed, which weighed exactly six drachms and five grains. It had retained its original shape, and was slightly flattened at one part where it had struck against the barrel of his musket. The wound is rapidly healing.—*The Lancet.*

NOTES AND QUERIES.

"Progress in Medicine"

Is the title of "the President's Address" at the annual meeting of the South Eastern Branch of the British Medical Association, by George F. Hodgson, M.R.C.S., of Brighton. From this address we wish to take a paragraph to show our younger men what progress has been made by the unselfish efforts of their predecessors, though they can never realize the courage and endurance that have been necessary to effect the change. Parsfui.

"Many invalids come to Brighton to convalesce (sometimes to die). Among such as come under my notice, one every now and then turns up who has been mercurialized, and that for non-specific disease. It is against the perpetuation of such a mistake that I wish before this considerable assemblage of medical men to protest. Of course, in common with all the rest of you who have attained to middle life, I was trained by my teachers to consider mercurialism as indispensable in the treatment of all acute inflammations. The classical lectures of Dr. Watson forcibly impressed this upon us, and, in equally powerful and elegant language, Dr. Latham's clinical lectures made it a *sine qua non;* but these were about the last physicians of celebrity who so taught. About fifteen years back, Professor Bennett, of Edinburgh, and the late Dr. Todd, of London, both taught and published the uselessness and the banefulness of this treatment, in a manner that could not be refuted. Dr. Habershon and the late Dr. Tanner (a pupil of Todd's) followed with valuable publications in the same direction; and now, I suppose all our leading physicians and surgeons are unanimous on the subject. Sir Thomas Watson himself has lived to acknowledge its soundness likewise. How is it, then, that some men still adhere to this old-fashioned and injurious practice? Four-and-twenty years ago, on account of a deep-seated affection of the eye, caused by overuse of books and microscope, I was treated by a famous oculist (Mr. Dalrymple) with a prolonged course of mercury, which seemed to render my eye worse instead of better, and certainly grievously impaired my general health. Consequently, I became a ready disciple of Bennett and Todd, and ever since that time I have entirely abandoned the use of mercury in all inflammatory disorders, whatsoever organs might be affected; and, I may add, with an immensely more satisfactory result than previously. The cure of the disease has been surer and quicker, and the dreadful *anæmia* and prolonged debility, consequent on a long mercurial course, have been avoided. So recently as in the penultimate number of the *British Medical Journal*, a gentleman narrates a case of general paralysis in a man, consequent on an injury to the head, which he says he 'treated with mercury until the system was affected.' On what grounds, I cannot understand."

Mortality in Massachusetts.—*Deaths in fifteen Cities for the week ending August* 1, 1874.

Boston, 205; Worcester, 24; Lowell, 31; Chelsea, 7; Cambridge, 40; Lawrence, 15; Springfield, 8; Lynn, 13; Gloucester, 3; Fitchburg, 5; Newburyport, 5; Somerville, 6; Fall River, 36; Haverhill, 9; Holyoke, 12. Total, 419.

Prevalent Diseases.—Cholera infantum, 143; consumption, 48.

Of the largely increased mortality from cholera infantum, Boston reports 87 deaths, and Cambridge reports 10.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

Deaths in Boston for the week ending Saturday, August 8th, 219. Males, 121; females, 98. Accident, 1; abscess, 1; apoplexy, 2; asthma, 1; inflammation of the bowels, 8; bronchitis, 2; inflammation of the brain, 1; disease of the brain, 4; burned, 1; cancer, 4; cerebro-spinal meningitis, 1; cyanosis, 1; cholera infantum, 85; cholera morbus, 6; consumption, 28; convulsions, 2; debility, 4; diarrhœa, 11; dropsy, 1; dropsy of the brain, 2; dysentery, 3; erysipelas, 1; scarlet fever, 1; typhoid fever, 5; disease of the heart, 8; hernia, 1; intemperance, 1; jaundice, 1; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 9; laryngitis, 1; marasmus, 6; old age, 2; paralysis, 1; spina bifida, 1; tabes mesenterica, 2; thrush, 1; teething, 1; whooping cough, 1.

Under 5 years of age, 135; between 5 and 20 years, 12; between 20 and 40 years, 25; between 40 and 60 years, 21; over 60 years, 26. Born in the United States, 173; Ireland, 30; other places, 16.

THE

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Original Communications.

SURGICAL TREATMENT OF EMPYEMA.*

By HENRY CLARKE, M.D., of Worcester.

Read before the Massachusetts Medical Society, June 3, 1874.

LET me now proceed to the report of the cases, five in all, which I have treated by making free openings. When I performed my first operation, I was not aware that it had been done in this country. In this remark I do not, of course, include cases of *empyema necessitatis*, that is, where the abscess points externally to the ribs, as it has always been the practice to open such.

In a few months, however, after my first case, Dr. J. G. Blake, of Boston, reported four cases which he had successfully treated in this way. See this JOURNAL, June 5, 1873.

CASE I.—Jan. 21, 1873, I was called to see W. F., aged about 25. Constitution good. I drew from the patient and family the following history. Had smallpox or varioloid about Christmas. Ten days previous to my visit, he had a chill, and a stitch in left side, which was followed by cough and fever. "Not believing much in doctors," to quote his own language, no physician had attended him during his illness with smallpox, and none was called at this time. He was, however, well nursed and cared for by his mother. A week from this attack, and two days previous to my visit, he was seized with a pain in his right side. He became so ill and so much alarmed that he wished for a physician, and I was summoned. I found him reclining in bed. Breathing, short and painful; pulse, 110; temperature, 104°. His face was red and well pitted, showing that he had had a copious eruption of smallpox pustules. Auscultation and percussion gave the following results. Over left side and back, low down, moderate dulness, coarse crepitus, and slight ægophony. Over base of right lung, some râles, diminished respiration and increased resonance of voice. Diagnosis, double pleurisy. At this time, there was pain in right, but none in left, side.

Jan. 26th.—Five days later, pulse 100; temperature, 102°. Less pain in side. Increased dulness on percussion over base of right lung, ægophony and bronchial respiration.

Physical signs on left side of chest unchanged. Cough troublesome; expectorates a ropy, dark-colored mucus; has considerable perspiration. Ordered quinine, opiates and stimulants, and a small blister on left side. Patient remained in much the same condition for several days. The effusion into right side increased slowly, and on the 30th,

* Concluded from page 155.

the ninth day of treatment, I applied a large blister under right scapula. I saw no good results from the blister, but, on the contrary, the fever seemed to be increased by it, and the patient was much irritated. Pulse increased in frequency. This effect of the blister, taken in connection with the profuse perspiration, led me to think that I had to deal with something more than simple serous exudation. There was but little change in the condition of patient for a week or more, except that the fluid in the chest steadily but slowly increased. The minutes of the case, made Feb. 9th, ten days later, are these :—

Pulse, 108 ; temperature, 103·5°; cough, at times, urgent ; character of expectoration unchanged, still prune-colored. Profuse night-sweats. Has a smothered sensation in chest. Lies with the shoulders elevated. Flatness on percussion extends nearly to top of right shoulder. Entire absence of respiration over lower half of lung. Intercostal spaces less marked than on left side. No decided bulging of the ribs. At base of left lung, and extending up to angle of scapula, some crepitus, but respiration vesicular.

Thoracentesis was advised, but patient and friends urged delay. There was but little change for a week or two, and the operation was not performed until the 21st. The patient was much reduced in strength, too much so to sit up. With the advice and assistance of Drs. Martin and Wood, I made the puncture with the small trocar of the Bowditch apparatus, and the point of election was in front, in the fifth intercostal space, midway between the axillary and mammary lines. Three pints of thin pus were pumped off, the patient lying propped up in bed. Severe coughing was induced by the operation, but was relieved by opiates, and the following day he was more comfortable. He improved in strength, and in every respect for ten days. The cough, however, continued troublesome, and the character of the sputa was but little changed. At the end of two weeks, he began to complain of more oppression in breathing, to have more fever and perspiration, and the physical signs gave clear indications of a large re-accumulation of the fluid. I now advised making a free opening, but it seemed to the patient and friends a fearful thing to do. I explained to them the nature of the operation, and gave them the authorities for the proceeding. While admitting, with entire frankness, the novelty of this method of treatment in this country, and also the unfavorable condition of the patient, I urged it with great persistency, believing that it afforded the only reasonable chance of recovery, as another tapping would only give temporary relief. The patient grew steadily worse, and at the end of another week, or three weeks from the time of the first puncture, when in an extreme condition, consent was obtained.

March 15th, I made the opening, assisted by Dr. Gage. The patient reclining in bed, I first thrust in the needle of the aspirator, to make sure of finding pus, and then made an incision two inches long at the same point, viz., the fifth intercostal space between the mammary and axillary lines, and then dissected down to the pleura. When this was reached, I put the forefinger of the left hand upon the lowest rib, so that the finger nail was just above the edge of it, and then passed the point of my knife along the back of my finger, punctured and cut right and left, making an opening corresponding in extent to the outer one. There was scarcely any bleeding, and about three pints

of thick pus flowed out. I did not wash out the cavity at the time, and after matter had ceased to flow freely, I crowded a piece of soft linen into the opening between the ribs. In the evening of the same day, I syringed out the cavity with warm water. There were no indications of shock. The following morning, March 16th, his pulse was 100, temperature 102°. He had taken stimulants freely, and opiates sufficient to relieve the cough in a measure and to procure some sleep. I syringed out the chest night and morning, and he began to improve in every respect. He took nourishment eagerly, and stimulants without measure. Half a pint of brandy and a bottle of claret or hock were daily consumed. On the eighth day, his pulse was 98. Tongue began to clean at the end, cough had diminished, and expectoration was lessened in quantity, but was still discolored. On the evening of the eighth day, I noticed an unpleasant odor to the discharge, and the patient said he did not feel so well. In the morning, I found a great change in his condition. His feet and hands were cold, countenance pinched and pulse feeble. The discharge from the wound was thinner and very offensive. I washed out the cavity with a solution of carbolic acid, one part of the acid to ninety-nine parts of water. I did this night and morning, and prescribed quinine, fifteen grains daily, with ten drops of the muriated tincture of iron every six hours. The patient lay for several days in a desperate condition. The pulse ranged from 130 to 140. By the fifth day, he showed signs of improvement, and on the eighth day, that is, the fourteenth day after the operation, I made the following record: Pulse 116; feet and hands warmer; countenance less sunken; discharge thicker and less offensive.

The fœtor emitted by the decomposition of pus in the pleúral cavity seems to me to be peculiar. Like the pathognomonic odor of gangrene of the lungs, once experienced it can never be mistaken. A drop of the pus upon my fingers would give off a nauseous odor for a whole day, in spite of soap and hot water. I have experienced something like this in subsequent cases, but nothing approaching it in degree.

But to return. My patient continued for ten days to improve. The pus became thick and healthy in appearance, but it was at no time entirely free from a nauseous smell. Then suddenly, as by an eruption, the same fœtor returned, accompanied by the same alarming symptoms. No efforts were, however, relaxed, and he received his medicines, nourishment and stimulants with the utmost regularity. I changed from carbolic acid to a solution of permanganate of potassa and to tincture of iodine with iodide of potassium. I saw no advantage in them over the former, and returned to the acid, using a stronger solution: two teaspoonsful of the liquid carbolic acid to a pint of water and an ounce of glycerine. This seemed to work better. The fœtor diminished, and the patient improved accordingly. The cough was persistent, and râles were heard over both apices to such an extent that I feared phthisis. The sputa became light colored. The wound granulated, and the opening daily grew smaller, until it became difficult to wash out the cavity sufficiently. It was easy to pass in the catheter, but the water and pus could not easily flow around it. This made the syringing a slow and tedious process. I tried leaving in a piece of drainage tube, and also a piece of flexible catheter, but both proved unsatisfactory. I therefore

continued, each day, to pass in between the ribs a piece of folded linen, which kept the wound from closing, and I succeeded in washing out the cavity quite well by first inserting a piece of catheter four or five inches long and passing in by the side of it a smaller one, more flexible, through which I forced the carbolic solution. The urine, however, soon became discolored, showing the absorption of the acid. It was clear when passed, but after standing a short time it became almost as black as if ink had been put into it. I observed no bad effects, and continued to use the same strength for several weeks. The discharge was at no time free from a disagreeable odor, but the patient slowly and steadily gained ground. By the 12th of May, two months less three days from the time of the operation, the discharge having nearly ceased and become more or less serous, the opening was allowed to close, which it did almost immediately. This patient continued to cough for nearly two months longer, but at last made a good recovery, and is now in excellent health.

Case II.—*Empyema necessitatis.*—P. T., admitted to the City Hospital at Worcester, May 22, 1873. The following account is from the hospital records:

"Was well until five months ago, when he fell upon the ice and hurt his left side. Was ill in bed about three weeks. Had pain in the side and coughed severely. He has now free expectoration of yellow mucus and grey pus. Complains of pain in left side. Appetite pretty good. There is an inflamed tumor, as large as a small orange, on the left lower lateral chest, fluctuating and tender. Patient states that he first noticed a little swelling there about the first of March. One day, a short time after the lump was noticed, he had a severe vomiting turn, after taking castor oil. He felt something give way at that spot, and, soon after, coughed up pus in amount so large as to fill both mouth and nose. At various times since, he has raised pus in considerable amount. There is flatness on percussion, both before and behind, below the line of the nipple, and absence of respiration over same area. Above this, there are dulness and râles."

On the 23d, the day after his admission, I made a free incision into the tumor. The wound discharged freely for several hours after the operation. The cavity in the chest was washed out once or twice daily with carbolic acid, and in three or four days he began to complain of tasting the acid at each injection. This patient was almost immediately relieved of the harassing cough. His breathing was easy and his appetite very good. In three weeks from the date of the opening, the discharge had become quite small in quantity and was thinner. He had gained much in flesh and strength.

June 14th.—Patient was allowed to return home, although the wound was not quite closed. It soon, however, became so, and he was able to resume his usual occupation, which was that of a pedler. He has continued in good health since that time.

Case III.—L. P., age four and a half years. A scrofulous child. First saw her Jan. 2, 1874. Was informed that late in the autumn she had scarlatina. My advice was sought on account of a discharge from one ear, and from the nose. I was called again on the 7th, when I found her apparently suffering from an influenza, at that time quite prevalent. She was feverish, and had a loose, hoarse cough. Mucous râles were heard over chest. Two days later, I was summoned in

haste, and found her in a convulsion. The following morning, her pulse was 160. Temperature, 105°. Cough, short and painful. Skin, dry. Nervous twitchings. Physical signs were, râles throughout both lungs, some increased resonance of voice near the base of right lung, with diminished vesicular respiration. This little patient lay for the next four days in a most critical condition. Her breathing was exceedingly rapid, and her pulse so frequent and fluttering that it could rarely be counted. This condition of the pulse led the physician, who was called in consultation, to the opinion that there was pericarditis complicating the pneumonia, which we at that time supposed her to have. She was not raised from the pillow, and no attempt was made to auscult the chest. Dulness on percussion was quite well marked under right arm, as she lay in bed. Her death seemed imminent from day to day, and at times from hour to hour. She was kept upon what is known as the supporting treatment, and warm, stimulating fomentations were applied to front and right side of chest, and then covered with rubber tissue. I held firmly to the opinion that the somewhat peculiar condition of the pulse was but the index of the severity of the disease, and the expression of its effect upon the nervous system. I was, however, persuaded to try the effect of digitalis, and the third day after the convulsion I began to give three drops of the tincture every four hours, but continued, also, the carbonate of ammonia, which she was previously taking. I watched her closely, and gave the digitalis for three days, but without any improvement in the condition of the pulse. The temperature fluctuated very much, from 100° to 106°. I now discontinued the digitalis, increased the amount of stimulants, and gave one grain of quinine every six hours. The following morning, the pulse was regular at 160, and the general appearance correspondingly improved. This improvement continued for the next two or three days; the cough became fuller and looser. By the eighth and ninth day, she seemed to cough up a good deal of matter, and to swallow it as young children do. I supposed everything to be going on well. She was exceedingly irritable and nervous, so much so that it was difficult to feel of her pulse, and no attempt was made to examine her lungs. She slowly gained in strength, but had exacerbations of fever, and profuse sweating. This led me to suspect that resolution was not going on as it should in simple pneumonia, and on the twelfth day from the convulsion which ushered in the attack, I requested the mother to take the child from the crib into her lap, which had not been done during her illness, and I then examined her chest. I found complete flatness on percussion over right lung from the base nearly to the apex, absence of respiration, bronchophony over middle and upper lobes. Here was, evidently, an accumulation of fluid. I continued the tonics and stimulants, but she ceased to gain in strength. Her fever turns increased, followed by profuse perspiration. The pleuritic exudations increased, the ribs bulged out, intercostal spaces were obliterated, and the flatness extended to the clavicle. I decided, first, to remove the fluid by the aspirator, although expecting to find pus. This operation was performed Feb. 1st, on the 22d day of the illness. The child was very feeble, and in a very nervous and excitable state, and I feared so much that the fright and pain might produce an unfavorable effect, that I thought it wiser to administer chloroform. Dr. Gage, who assisted

me, concurred in this opinion, and the patient inhaled a little chloroform without any resistance, and was kept lightly under it during the whole operation. More than a quart of pus was drawn out. No paroxysm of coughing, or difficulty of breathing was induced, and the patient slept quietly for half an hour afterwards. The relief was immediate; the temperature fell, the cough lessened and the appetite improved. She ate raw scraped beef, and drank milk punch and broths freely.

This improvement continued for only four or five days, and at the end of a week after the tapping, I decided to make a free opening, which I did, with the assistance of Dr. Leonard Wheeler. The patient was again chloroformed, and an incision made in the fifth intercostal space, between the mammary and axillary lines. Fully a quart of thick pus flowed out at once. I dressed the wound in the usual way. The little girl slept a short time, and then awoke, unconscious of what had been done, complaining only of some soreness of the left side. I washed out the pleural cavity daily with a solution of carbolic acid and glycerine. It was prepared each day, in the following manner. I put a large teaspoonful of liquid carbolic acid and about an ounce of glycerine into a pint of blood-warm water, mixing them thoroughly with a syringe. I introduced a No. 6 gum-elastic catheter between the ribs and injected through this, the fluid flowing out again at each side of it.

On the fifth day after the operation, I made the following record: temperature 100°, pulse 130, countenance brighter, cough less, breathing easy, appetite voracious, eats raw meat with avidity and drinks large quantities of milk punch, egg-nogg and broths.

From this time recovery went on steadily. The daily discharge of thick pus was large in quantity and diminished slowly. Four weeks later, as the discharge was still abundant, I began to use a solution of iodide of potassium with tincture of iodine in place of carbolic acid. After making this change, the discharge diminished more rapidly for the next ten days and the opening became smaller, so that it was more difficult to crowd in the plug of lint as I had done. I therefore took a piece of rubber tubing about the size of a pipe stem and two inches long, and with a needle drew a piece of double linen thread through the edges of one end of it, tying the ends of thread so as to form two loops. This tube I inserted in the opening and fastened the loops of thread upon the outside of the chest with strips of adhesive plaster. This prevented the tube from being displaced. I washed out the cavity every day by passing a very small elastic catheter by the side of the tube into the chest and injected through this, the fluid returning readily through the tube.

I removed the linen plug which I had placed in the end of the tube only once a day. Scarcely any discharge escaped from the wound, so that the side was kept clean and dry. On the 1st day of April, nearly eight weeks from the time of the operation, the discharge having become clear, I removed the tube. The wound closed at once and there was no further discharge. The child was able to sit up for an hour or two, but it was two or three weeks before she was strong enough to walk. At this date, May 26th, she is well. There is but little contraction of the side, and vesicular respiration is audible throughout the right lung.

Remarks.—This was undoubtedly a case of suppurative pleuritis, following scarlatina. It was better in this case to make the opening in front. If it had been made in the back the patient could hardly have borne the fatigue of the daily syringing. Chloroform was used in preference to ether on account of its great ease in administration, and for the reason that it is not attended with the same risk of syncope in children as in adults.

Case IV.—L. E., a little girl aged 3 years, 4 months. First saw her June 12, 1874. Was told that she had been poorly for several weeks, the result of a bad cold. Had lost flesh and had a constant cough. I found pulse 128, temperature 101°. Short, dry cough. Physical signs were dulness on percussion over lower part of right lung, absence of vesicular respiration and bronchophony.

The effusion slowly increased. Profuse sweating came on and shortness of breath. By Feb. 1st, the right side of chest was well filled. On the 6th, an attempt was made to draw off the fluid. A small amount of chloroform was administered by Dr. Leonard Wheeler, who assisted me, and the puncture was made in front with the small trocar of the aspirator. Only an ounce or so of thick pus was removed. The stitch of the canula was passed in for the purpose of removing any obstruction, if such existed. The canula was moved in and out and in different directions, but no more pus could be obtained. I felt confident that a large amount of purulent matter must be in the chest, but I decided to desist from further efforts to remove it at that time. The child gained in strength for a week or more, and improved so much in appearance that I was at a loss to account for it. On the first day of March, assisted by Dr. Peabody, I made an opening in front, as in preceding cases, and about a pint of thick pus was removed. Semi-solid masses of matter obstructed the opening, now and then, which I drew out with dressing forceps. I found on the following morning that there had been but little discharge, and that the inner orifice was stopped by a piece of this coagulated matter. Upon removing this, liquid pus gushed out in large quantities, more than on the preceding day. No shock to the system resulted from the operation, and all the indications were favorable. The same local and general treatment was pursued as in the previous cases. The appetite soon became voracious, the child eating greedily almost anything that was given to her, and drinking freely of lager beer and wine. She gained steadily in strength and the discharge diminished in quantity. At the end of three weeks she was able to sit up an hour at a time, and I considered her quite safe. She was at no time so reduced in strength as the other little girl whose case I have just related, and I considered her case more promising from the beginning. On the 25th, the child was feverish, and upon removing the dressing I found the skin around the opening to be inflamed and to have a red appearance like erysipelas. In the evening, I found the redness to be extending in irregular outline inwards and downwards. I surrounded it with a line of tincture of iodine, but in the morning the inflammation had crossed the line of iodine paint and appeared in bright red patches over the liver and reaching nearly to the pit of the stomach. The edges of the wound were gangrenous and the discharge thin and offensive. Pulse very feeble and countenance pinched. Was unwilling to take nourishment or stimulants and had slight vomiting. On the morning of the 27th,

I found her bowels swollen and tender, and vomiting more urgent. Had retained no nourishment during the night. On the afternoon of this day, being the fourth of the attack, she suddenly died in an attempt to vomit.

The cause of this erysipelatous inflammation, and the reason for its rapid progress and for the sudden death of the patient, are questions which I cannot answer satisfactorily to myself.

Case V.—Mrs. H., aged 28, mother of several children. First called to her April 12, 1874. Found her sitting up and was told that, about two months before, she had a stitch in her side, was feverish, with some cough, and it hurt her to draw a long breath. Kept about the house all the time, but had had cough ever since, and at times pain in right side. At this time she had some fever, a troublesome, dry cough and loss of appetite. Physical signs were flatness on percussion over lower half of right chest and absence of respiration over corresponding area. The usual treatment of blistering, diuretics and alteratives was pursued, and at the end of twelve days, finding that the effusion had somewhat increased in quantity, I thought it better to attempt the removal of the fluid by the aspirator. This was done on the 24th of April, and a quart of straw colored serum was drawn off through the smallest sized trocar. The fluid was darker and thicker than is usual. The patient was relieved in a measure. Cough diminished and appetite improved for about a week. Then more fever and profuse perspiration came on, accompanied by loss of appetite and strength. Percussion indicated a re-accumulation of fluid in right side of chest and the flatness extended higher up. Patient complained of a suffocating sensation, and therefore on the 6th of May, twelve days from the first tapping, I repeated the operation and obtained more than a quart of thin, purulent fluid. The patient breathed more easily, but the fever did not abate, and the cough and profuse sweating continued the same.

Being satisfied that the exudation was rapidly increasing, I decided to make a permanent opening, which was done on the 10th of May, with the assistance of Drs. Wheeler and Marble. This patient was confined mostly to her bed, but was able to sit up for a short time. Therefore I made the opening in the back about two inches below the angle of the scapula and a little towards the side. Three pints of purulent fluid were discharged. The pleural sac must have been very thoroughly evacuated, as the patient coughed a great deal at the time, which always serves to force the matter out. The subsequent treatment was substantially the same as in the preceding cases. Patient was able in two weeks to sit up for two or three hours at a time. There was no fœtor to the discharge and it steadily diminished in quantity. Three weeks after the operation, the wound having healed from the corners and the opening being much contracted, I inserted two rubber tubes, which served the purpose of a double canula. This arrangement has given such entire satisfaction in this case that I shall feel disposed to try it again in preference to the T shaped wire device, described by Dr. Oliver in this Journal,* or to any other contrivance that I have heard of. I obtained a piece of rubber tubing, the size ordinarily used for nursing bottles, and cut from

* Vol. xc. page 421, April 30, 1874.

it two pieces about two inches in length. I passed these in, between the ribs, side by side. Through the outer end of both, on the upper side, I passed a needle, armed with strong linen thread, and left at each end a loop five or six inches long. One of these I carried backward and the other forward, and fastened both down with adhesive plaster. In this way the tubes have been kept firmly in place for ten days. The ends are stopped with small pine pegs, which are removed two or three times daily for the purpose of washing out the pleural sac. This is done with a syringe having a tapering nozzle, which fits into one of the tubes. The injected fluid readily returns through the other tube, washing out the pus. There has been no disagreeable odor from the rubber or from the wound. The patient sits up and walks about the house and convalescence has progressed rapidly. Her husband has been able to syringe out the pleural sac for the last week. The discharge is now very small in quantity, and I presume it will be safe in a week or two to remove the tubes.*

The history of this case serves to indicate what rapid recoveries may be expected in the more favorable cases of empyema. The number of empyemic patients treated in this country after the plan I have endeavored to illustrate, has been too few to enable me to give any statistics of results from which to draw positive conclusions.

The four cases published by Dr. Blake, together with the five that I have reported, make in all nine, eight of which recovered and one died, and that one from an accidental or secondary affection. These few cases, however, serve to confirm the testimony of German surgeons as to the brilliant success that has attended this operation.

A CORRESPONDENT of the *Irish Hospital Gazette* gives an account of an operation performed by Dr. Billroth, of Vienna, for the removal of a tumor from the bladder of a boy twelve years of age. The child had complained of pain in passing water for ten months. The urine was cloudy and contained some mucus and pus. The sound passed readily into the bladder and detected a rough surface, but no calculus. A tumor in the region of the bladder could be distinctly felt through the abdominal walls. It was slightly painful on pressure. It could also be felt upon examination per rectum; its consistence was very much that of a fibroma, and it seemed to spring from the bladder. The walls of the bladder were apparently hypertrophied. As there might be a calculus in a diverticulum of the mucous lining of the bladder, Billroth determined to perform lateral lithotomy, and then, if his supposition was confirmed, and the tumor was adherent to the bladder, to perform the high operation and remove the growth. This was accordingly done, and it was found that the tumor grew from a short and tolerably broad pedicle from the posterior wall of the bladder, and very high up. Although a large opening in the upper wound was made, the tumor was too large to be removed through it, and portions were broken off before the mass of the tumor could be torn from the pedicle and removed. The pedicle was dissected out from the wall by incisions which penetrated nearly to the peritoneum. Drainage tubes were left in both wounds, and the patient has done well since the operation, although the time is not specified. The tumor proved to be a pure myoma.

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* The patient has since entirely recovered.

Clinical Lecture.

OVARIAN CYST.

By Calvin Ellis, M.D.,

Professor of Clinical Medicine in Harvard Medical School; Visiting Physician to the Massachusetts General Hospital.

The patient, an Irish widow, 61 years of age, entered the hospital on Oct. 21st, 1873. She has had nine children, the last having been born eighteen years ago. The labors have been natural, and have not been followed by any bad consequences.

She was always healthy till last winter, when she had a discharge of "blood and thick matter" from the rectum. This recurred about once a month, until last month, when it ceased and has never returned.

In April, 1873, she noticed an *enlargement* of the lower part and middle portion of the *abdomen*. This gradually extended upwards, as if she were in the family way. For three weeks after the swelling was first noticed, there was *severe pain* in the lower part of the abdomen. She never noticed any swelling of the face or hands. The *appetite* has been pretty good. The *bowels* have been *constipated*. She has had hæmorrhoids for many years. *Micturition* and the character of the *urine* have been *normal*. The catamenia ceased fourteen years ago, but were previously regular. Pulse 84, normal.

She complains at the present time of *abdominal distention* alone. Our first inquiry must be whether the history furnished will throw light upon the cause.

Though the enlargement followed the cessation of the discharge from the rectum, and as the beginning was accompanied by pain, the subsequent course and present character of the disease do not warrant us in connecting the two.

It is obvious that we must ascertain the *character of the enlargement* before we can settle this question absolutely.

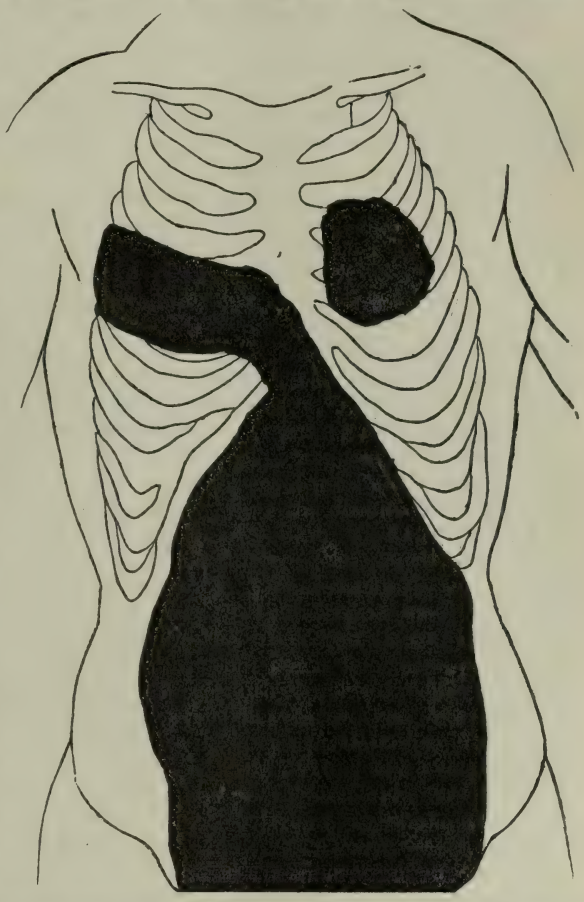
Following the same course of reasoning as in the former cases, we must consider *whether this change of form is caused by some affection of the parietes, or of the contents of the peritoneal cavity.*

The *abdomen* measures forty-two inches in circumference, two inches above the umbilicus, and is *uniformly distended*, but the depending parts are thick and swollen. With the latter exception, the appearances are such as to indicate that the *parietes are distended from within outwards*, and we see that this swollen appearance is caused by *œdema* of the subcutaneous tissue, the parts pitting readily on pressure. We see, also, that there is some *œdema of the lower extremities*. This infiltration of the subcutaneous connective tissue with serum is often an indication of some disturbance of the circulation, or of renal disease, and we do not overlook the possibility of such existing, but we must not be diverted from the examination of the abdomen to consider other parts, as we may find here a sufficient explanation of these superficial changes, and can examine other organs at a later period, if necessary.

On *deep pressure* of the abdomen, marked inequalities of resistance are noticed, the least being just above the umbilicus, the greatest in the left hypochondrium. Still, there is no definite outline, and we can

arrive at no precise conclusion in regard to the nature of the contents. We must, therefore, resort to *percussion.*

You notice that the whole abdomen, with the exception of the outer and posterior lumbar regions, is perfectly flat on *percussion,* and that the line limiting this flatness curves inward towards the upper part, as if a rounded body had risen from the pelvic region upwards. You also notice that the resonance of the right lumbar region continues upwards and embraces the hepatic region, while the flatness which usually characterizes the latter is transferred to and occupies only the space comprised between the upper border of the 4th and 6th ribs.



As the ordinary seat of the liver is occupied by the intestines, and that of the lower part of the right lung by some non-resonant matter, the question which at once presents itself is, *whether the liver has been pushed upward, or whether the pleural cavity or the lung is the seat of some disease.* The normal character of the pulmonary resonance and respiration as low on the line which marks the flatness, and the absence of all respiratory sound below, show that the lung itself is intact, as it is very exceptional to have both respiration and resonance normal to the very line which marks the change of density when the disease involves the pulmonary tissue.

Behind, we have resonance, showing the presence of the intestines as high as the last rib only, and from this point the flatness extends upward, scarcely above that which belongs to the liver when in its usual seat. Moreover, nothing whatever is heard on auscultation over the flat region, and its outline does not change on change of position. We have, therefore, reason to believe that the flatness is that of a solid body. Though narrower vertically in front than usual, the form is that

of the liver, as is the flat region behind, and we have only to suppose that the organ is rotated upon its horizontal axis by the upward pressure of the abdominal tumor and intestines to explain the variation of form and position described.

On examining the *left side of the chest*, we find an *isolated rounded dull region*, extending from the upper edge of the third rib to the lower edge of the fifth, surrounded by pulmonary or stomachic resonance. This has the form of the normal cardiac dulness, and the sounds and impulse of the heart are distinctly heard here. It is apparent that we have a *large abdominal tumor*, which has pushed aside all the organs interfering with its development.

It is now our task to ascertain, if possible, the *nature of this tumor*. The compressibility and elasticity are so marked that we at once suspect a fluid, but we can detect no fluctuation. This, however, is not a sufficient reason for denying that the enlargement is owing to the formation of fluid. Certain growths, such as ovarian cysts, though containing a large amount of fluid, may be so subdivided, and may vary so much in different parts, as to prevent that movement necessary for the production of this easily recognized sign. We have already spoken of the unequal resistance of different parts of the tumor, and may properly infer that this is connected with such a want of homogeneity as would make fluctuation very doubtful.

Assuming, then, that the liniform outline of the mass indicates a rounded tumor, and that the consistence is such as to show that this is *a sac or an aggregation of sacs*, we must consider what kind of cystic tumors may arise in the lower part of the abdominal cavity. The impregnated uterus might assume such a form, but the age of the patient at once disposes of such a supposition. Fibroid or fibro-cystic growths may originate in the uterus and attain considerable size, but it is very improbable that such would become as large as this tumor, and still more improbable that cysts of the Fallopian tubes or of the uterine appendages would attain such a size. These latter are also much more rare. With the doubt which still clouds our decision, a vaginal examination may be of service. Nothing remarkable is noticed; the uterus is movable and in its usual position; the sound enters the cavity about the usual distance.

Taking into consideration, therefore, the size of the tumor, its situation, its peculiarities and the relative frequency of certain forms of disease, we have, in all probability, *an ovarian cyst*.

The character of the disease and the absence of any special indications of ascites, make it improbable that the œdema of the abdominal walls and of the lower extremities has any other cause than the tumor itself, as the circulation might be interfered with very easily, and such œdema is at times noticed in ovarian diseases. This view is confirmed by the fact that the heart is normal, there have been no indications of disease of the liver, and the urine shows that the kidneys are healthy.

Varicose veins are too common to allow any conclusion to be drawn from their presence, unless it be based upon more significant signs.

Treatment.—As the patient declines any operative treatment, we cannot confirm our diagnosis or give any relief, as far as the disease is concerned, but we can relieve the constipation, and, by good care and nourishment, enable the patient to bear her infirmity somewhat longer.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By W. L. Richardson, M.D.

Obstetrics.

Chloral as an Anæsthetic during Labor.—Dr. Playfair, recognizing the fact that the administration of chloroform during labor is apt to diminish the pains and thus prolong the labor, has, during the last two years, used chloral as a substitute, and with the very best results. He claims for it (*Lancet*, Feb. 21, 1874) that its administration does not in the slightest degree alter the character of the pains, while it does materially lessen the sufferings of the patient. It is rare that chloroform is given until the first stage of labor is fairly concluded, lest its administration should interfere with the progress of the labor. Chloral, however, can be given towards the close of the first stage, and when the sharp cutting pains are so severe as to not unfrequently completely weary and exhaust the patient by hours of almost fruitless suffering. His method of administering the drug is as follows:—A six-ounce mixture, containing a drachm and a half of chloral, is ordered. One-sixth of the mixture (fifteen grains of chloral) is given when the pains become severe. This is repeated in twenty minutes. The patient is usually by that time sufficiently under the influence of the remedy. Its further use must be regulated by the condition of the patient. When it is found necessary to repeat the chloral, half the quantity will usually be found sufficient. Dr. Playfair has never found it necessary to give more than a drachm of the chloral during the whole labor. The use of this remedy does not predispose to *post-partum* hæmorrhage, as is the case with chloroform. The use of chloral in cases of rigidity and spasm of the cervix uteri, has been followed by a marked and speedy relaxation of the tissues.

Diagnosis of Pregnancy.—Dr. Rasch calls attention (*British Medical Journal*, Aug. 30, 1873) to a new method of detecting pregnancy, especially during the first three months. By making a vaginal examination with the fingers it is easy to detect fluctuation in the pregnant uterus. He has himself made out a diagnosis of pregnancy as early as the seventh week, and experiences no difficulty whatever in making it out after the second month. The uterus must be steadied by a hand grasping it through the abdominal walls, while two fingers introduced into the vagina manipulate the uterus. As a rule, the uterus will be found to be anteverted, a position which renders bimanual manipulation all the easier. The fluctuation is best detected at the fundus. Dr. Rarch thinks, also, that sufficient attention has not been paid to the increased desire to pass urine, especially at night, which is not unfrequently one of the earliest symptoms of pregnancy.

Spontaneous Salivation Associated with Pregnancy.—Dr. Archer Farr reports (*Trans. Obstet. Soc. Lond.* xv. 1874) a case in which a lady, the mother of four children, began to salivate profusely when about two months pregnant. The flow of saliva was very great, equalling in quantity, according to her own statement, three pints per diem. The tongue was clean. She complained of pain, and of occasional vomiting

after taking food. The salivation continued, unrelieved by medical treatment, up to close upon the point of her quickening. She was then greatly reduced in strength, and emaciated. The question of inducing premature delivery was discussed. Immediately on feeling the fœtal movements, however, she experienced complete relief. All the dyspeptic symptoms ceased, the appetite returned, and the salivary function became rapidly restored.

Prolapse of the Umbilical Cord.—In an article on this subject (*Amer. Jour. Obstet.*, Nov., 1873; Feb. and Aug., 1874), Dr. Engelmann, of St. Louis, gives his conclusions as to the causes and treatment of this dystocia as drawn from a careful examination of a large number of cases (365) occurring either in the Royal Lying-in Hospital of the University of Berlin, or in the out-door department of that institution. Of these cases, 160 were observed very carefully from the beginning to the end, and pelvic measurements made. The frequency of prolapse was found to be 1 in 18 cases of labor. In this country, the frequency would be much less, since here diseases tending to produce a deformity of the pelvis do not abound as in Germany, where these observations were made. A prolapse of the funis rarely complicates vertex presentations, but is frequently found with face presentations, as the result, however, not of the fœtal position, but of the pelvic deformity, which tends to produce both the abnormal position and the prolapse. Breech presentations are rarely complicated with prolapse, transverse and shoulder presentation are much more commonly, and foot presentations oftener than any other. The position of the placenta near to the os favors the prolapse of the cord. The unusual length of the cord is probably favorable to the occurrence of prolapse, but cannot be ranked among the causes. The premature rupture of the membranes at an early period of labor is one of the most common causes which tend to favor a prolapse. The chief and primary causes, however, are due to the maternal parts. While a flabby condition of the uterus and a general weakening of its muscular power, as the result of too frequent child-bearing, may tend to produce a prolapse, still the chief cause is undoubtedly to be found in a contraction of the pelvis. The flattened pelvis is the most common pelvic malformation found in these cases. Prolapse is somewhat more frequent among multiparæ than among primiparæ. It is rare that the cord prolapses *after* the rupture of the membranes; ordinarily, the accident occurs at the time of the rupture, although, occasionally, the cord may be felt presenting just within the still unbroken membranes. The prolapse usually occurs at the sacro-iliac fossa, less frequently in the acetabular region. Very rarely is it found to pass down in any region occupied by the occiput, or directly behind the symphysis pubis. The danger to the child comes, of course, from the pressure to which the cord is subjected during the labor, a pressure which is greater in head presentations than when any other part of the child presents. A careful *post-mortem* examination of children, whose death has been caused *inter-partum* by compression of the prolapsed cord, shows no change which could be called pathognomonic. The death is the result of asphyxia, which may occur from many other causes. The prognosis in these cases is most favorable when the feet present. Next come transverse and shoulder presentations, although these are far more dangerous than the first mentioned class of cases, and most dangerous of all are vertex presentations. The prognosis in

breech-presentations is at least equally favorable with that offered by transverse and shoulder-presentations. In a primipara, the prognosis is much less favorable than in a multipara. The life of the mother is, of course, not affected by the prolapse of the cord. It is possible, however, for a serious hæmorrhage to follow the premature loosening of the placenta in those cases where the cord is drawn over the head.

As regards treatment, many cases will occur in which it will not be desirable to leave the progress of the case to nature, nor will it be necessary to perform an operation. In these cases, attention must be given to the position of the mother during labor. She should lie on the side opposite that in which the funis has prolapsed. In cases where the prolapse has taken place in one or the other of the sacro-iliac fossæ, the simply placing the mother on her hands and knees may be all that is necessary for the self-adjustment of the cord. Oftentimes, however, this postural treatment is more an adjuvant to other methods of treatment than a method on which we should place our sole reliance. Version offers the best chance for the child, and should be adopted in preference to either reposition or delivery by forceps. Chloroform has proved a valuable adjuvant in any attempt to effect a reposition of the cord, and should be given so as to cause a complete relaxation of the muscular fibres. Reposition of the cord should be confined, with few exceptions, to cases of prolapse occurring with a head presentation.

Puerperal Convulsions.—In a paper recently read before the Dublin Obstetrical Society *(Dub. Jour. Med. Sci.*, June, 1874), Dr. T. M. Madden discussed the causation, preventive treatment and active treatment of convulsions, which he considered among the most dangerous, as well as the least frequent, of the complications of labor. The writer, after alluding to the various conflicting opinions which have been held by medical men as to the causation of puerperal convulsions, states that he is persuaded that a variety of circumstances have a share in the causation of these convulsions, and that all these various circumstances must be considered of equal account. The disease is connected not only with the state of the uterus itself, but also with that remarkable condition of nervous susceptibility which is peculiar to pregnancy. The cerebro-spinal nervous centres are usually more or less congested, and are irritated by the circulation, through their vessels, of a vitiated blood, containing some non-eliminated *materies morbi* which produces a direct toxic effect on the excito-motor nerve substance of the brain and medulla oblongata, and which stimulates the hyperæsthetic condition just referred to till the latent excitability becomes so intense as to need only the addition of uterine irritation, such as the first pains of labor, to cause those violent reflex muscular spasms, known as puerperal convulsions. It is a remarkable fact that puerperal convulsions generally attack a number of individuals simultaneously, a fact which may be due to some peculiar electrical condition of the atmosphere. Plural births are more frequently complicated with convulsions than are single ones, and first-births than subsequent ones. The presentation is usually natural. If eclampsia occurs toward the end of pregnancy, labor usually follows. If it occurs after labor has begun, the delivery is usually accelerated. Mental impressions, anxiety of mind, sudden shocks, depression of spirits, &c. are all conducive to eclampsia. The classification of puerperal convulsions as hysterical, epileptic and apoplectic may be entirely disregarded. They are a convulsive affec-

tion *sui generis*, peculiar to women who are or have recently been pregnant. Among the premonitory symptoms may be mentioned œdema of the upper extremities, face and eyelids, pain in the lumbar region, and albuminuria. Headache, giddiness, confusion of thought, or a peculiar irritability of temper usually precedes, for a few days, the attack.

The asthenic, or the so-called epileptiform puerperal convulsion, usually commences with a twitching of the muscles of the eyelids and eyeballs, and soon extends to the whole body, the convulsive action being, however, more marked on one side than on the other. In the majority of cases, the patient's state, during the commencement of the attack, is that of vascular depression, rather than of vascular excitement; as the convulsions recur more frequently, the impeded respiration, and consequent non-aëration of the blood, induces symptoms of venous congestion. Thus the disease passes into the stenic or apoplectiform convulsion. In plethoric women, the disease generally presents *ab initio* the apoplectiform character. The face is congested, respiration stertorous, pulse slow and full, limbs placid, and external stimulation produces no reflex action. Gradually, the convulsions cease, and the patient slowly recovers consciousness, or coma becomes more profound, and a violent convulsion closes the scene.

As regards treatment, the peculiar condition of each patient must be considered. Our object, as regards a prophylactic treatment, should be, first, to relieve the kidneys, which is best accomplished by cupping and fomentations over the loins, the free use of diluents, the cautious administration of mild diuretics, and especially of colchicum in small and guarded doses; secondly, to assist nature in her efforts to purify the blood by the use of saline aperients and diaphoretics; thirdly, to soothe the nervous irritability of the patient by the use of sedatives, especially bromide of potash and belladonna.

The indications for the treatment of a case of puerperal eclampsia are—first, to arrest the convulsive action; secondly, to remove the cause of its recurrence.

In all cases, the *primæ viæ* should be unloaded by the administration of calomel and jalap, or by a drop of croton oil. Enemata of assafœtida and turpentine may be used. The head should be shaved if possible, and the back of the scalp freely painted with linimentum cantharidis. A bladder of ice should be laid on the front of the head, and the feet and calves of the legs be enveloped in mustard poultices. In the sthenic form of eclampsia, a cold effusion on the head and face may be employed. Chloroform will be found of great use in many cases. In cases of sthenic puerperal convulsions, the only remedy of undoubted efficacy is venesection. As a rule, however, bleeding should not be resorted to if the pupils are dilated. In all cases where there is a tendency to apoplectiform symptoms, opium is contra-indicated. In every case of convulsion during labor, the delivery of the patient should be at once effected.

M. Fauny has recently published a valuable series of observations on the use of Hydrate of Chloral in Puerperal Convulsions. He claims (*Révue des Sciences Médicales*, 7, 1874) that the use of chloral is followed by better results than are seen after the administration of any other remedy. He advises its use not only when an attack has actually taken place, but in all cases where such an attack is feared.

Dr. Charrier has also reported *(Annales de Gynécologie,* January, 1874) very favorably on the use of this remedy in cases of puerperal eclampsia.

Twin-Pregnancy after Ovariotomy.—Prof. F. Marzolo *(Gazette Médicale de Paris,* 44, 1873) performed, July, 1871, ovariotomy on a woman aged 34. The patient recovered, and about a year afterwards became pregnant. Gestation went on to a normal termination, and she was delivered of twins, the first a girl (head presentation) born after a short labor of only two hours, the second a boy (footling).

Twin-Pregnancy in a Double Uterus.—Dr. Perrault reports *(Lyon Médicale,* August 31, 1873) a case in which a woman, aged 20, was delivered, by means of version and the forceps, of a fœtus. On introducing the hand to remove the placenta, an opening in the fundus uteri was discovered. A second cervix uteri was found opening through this aperture into a superimposed uterus. Through this, a second child was presenting by the shoulder. Version was performed, and a child, weighing 9½ pounds, removed. The woman died of puerperal fever, and no autopsy was allowed.

(To be concluded.)

Rabies Mephitica.—Rev. Horace C. Hovey, of Kansas City, Mo., writes to the *American Journal of Science and Arts* concerning a fatal disease which is communicated by the bite of the skunk, and which bears certain resemblances to hydrophobia. The rabid skunk seems to have exhausted his mephitic battery, or else has lost the projectile force by which it is discharged. Perhaps the secretion has been checked by the feverish state of the system; or there may be a causative connection between the inactivity of the anal glands and the generation of malignant virus in the glands of the mouth.

The writer having had his attention called to the disease by an encounter with a skunk, and by the statement of an experienced hunter that the bite of the animal is invariably fatal, opened a correspondence with hunters, taxidermists, surgeons and others, and obtained the particulars of forty-one cases of *rabies mephitica*, occurring in the Western and Southern States. All were fatal except one. Drs. Janeway and Shearer, Surgeons U. S. Army, reported several cases which resulted fatally from the bite of the skunk. Dr. Shearer wrote that he regarded the virus as peculiar to the skunk as the venom of the rattlesnake is to that creature, and not an occasional outbreak as in the case of the wolf or the *rabies canina.* From this opinion, however, Mr. Hovey dissents.

The attack of the rabid skunk is entirely different from the fierce assault of a mad dog. He approaches stealthily while his victim is asleep, and inflicts a deadly wound on some minor member—the thumb, the little finger, the lobe of the ear, one of the alæ of the nose.

The resulting disease resembles hydrophobia more than it does the effects of ophidian venom. The period of incubation is alike in *R. canina* and *R. mephitica.* It is indefinite, ranging from ten days to twelve months. During the incubative stage, no perceptible change takes place in the circulation.

The spasms of the larynx and œsophagus which occur in *R. canina* are wanting in *R. mephitica.* Nor is the hyperæsthesia of the skin, which is so marked in the former disease, present in the latter. In hydrophobia, the perceptions are intensified, but in mephitic rabies there is a positive loss of perception and volition.

The mode of death is by anæsthesia in both forms of rabies ; but in that of the dog the frightful struggles of nature to eliminate the poison are more prolonged than in that of the skunk.

Boston Medical and Surgical Journal.

Boston: Thursday, August 20, 1874.

Among the difficult problems which a rapidly growing community is called upon to solve, there is not one which is more pressingly or promptly brought to the notice of those who bear the responsibilities of government than the necessity for increased vigilance in all matters pertaining to the department of public health. A disregard of this important element in the successful administration of the affairs of a large city is so surely followed, sooner or later, by a striking illustration of the danger of neglecting sanitary laws, that a reform becomes an absolute necessity, and thus a requisite standard is eventually reached, only after experiences of a most distressing nature, entailing much suffering, and seriously endangering the welfare of the community. It is an old and oft-told tale, but, nevertheless, one which, apparently, nothing short of bitter experience enables even an educated and civilized people to profit by. Such, at all events, has been the train of circumstances which has terminated in the organization of a Board of Health adapted to the present needs of our own city.

It is with no small interest, therefore, that we turn to the second annual report of this body, giving, as it does, the record of its first full year of service.

The report opens with an allusion to the smallpox epidemic, the signal success with which this was handled by the Board being more fully treated in the former report; a table is, however, annexed, showing, in the most striking manner, the rapidity with which this terrible disease was overcome. Since the last report, there have been a few cases of smallpox, never more than two, and since March last the city has been absolutely free from the disease. Another field of usefulness which has not been neglected by the Board is the abatement of nuisances similar to the one on the now notorious Miller's River. The rendering establishment on Spectacle Island has been forced to introduce reforms into its manner of carrying on the business, which, although not fully in accordance with the improvements suggested by the Board, will doubtless make a marked change in the character of the effluvia emanating from that establishment. Those who have been obliged to remain in town through the present summer cannot be too grateful to the State and City Boards of Health for the marked contrast in the character of the air pervading the city. It is not to be supposed, however, that all sources of foul odors have been suppressed. Take, for example, the following statement, which ought to arouse the

serious attention of the wealthy inhabitants in the "Back Bay" lands, and induce them to demand a reform which, indeed, has been asked for during many years past, but does not seem to be forthcoming. "At low tide, there are, at least, one hundred acres of flats exposed and bare west of Parker Street, east from Brookline Avenue and south from Beacon Street. And what passes through this sewer? One half of the sewerage of the Highlands." This is but one instance of many cited in the report, which, further on, states: "our beautiful city is almost encircled by the mouths of sewers discharging their contents into shoal water or upon flats, the sewer gases rendering the atmosphere for some distance about the wharves absolutely dangerous to breathe." How often has this fact been pointed out, and the suggestion added that the immediate investigation of experienced engineers is required, and yet no movement that we are aware of has ever been made towards a radical change in the sewerage of the city. We hope the Board will press this matter firmly and persistently until something is done. In this connection comes up, also, the question of the removal of night soil. We have already called attention to the fact that the present method has been abandoned in many cities and a process substituted by which vaults may be emptied at any time of the day or season without offence. The responsibility for the continuance of the present offensive and antiquated method rests, we understand, entirely with the contractors.

Some sensible suggestions are offered on the subject of street sweeping and cleaning. This, although apparently a small matter, when compared with the more evident and serious questions of reform mentioned above, is, nevertheless, of far greater importance than many persons realize, who are in the habit of swallowing clouds of dust, mixed with every sort of impurity, and jolting, as a matter of course, over badly kept roads. We suggest this as a field for work in which the Board has a great opportunity to distinguish itself, and of earning the gratitude of thousands who now do not even know what a properly kept street really is. It is one of those "solid comforts" which old England is wont to brag about, but which we in this country too frequently neglect in favor of what is more showy and attractive to an ignorant public.

The subject of infant mortality is next touched upon. The gravity of this question renders it desirable that it should be thoroughly investigated by those most competent to undertake the task. We should be glad to see this matter discussed rather more from a medical point of view than it has been in the report.

Perhaps one of the most striking and interesting, as well as instructive, features of the report, are the charts accompanying the short chapter on Vital Statistics. The simple expedient has here been resorted to of employing different colors to fill out the squares of the

table, each color representing a different form of epidemic or disease. With these tables, one can see at a glance the ravages made by typhoid fever, consumption, cholera infantum, &c., during the year, without troubling oneself to study out a complicated explanation.

The chart illustrating the actual daily mortality for the whole year, with the meteorological observations for the same period, is a marvel of simplicity and ingenuity. Such a record, preserved through a series of years, cannot fail to be productive of interesting results.

Accompanying the report, are interesting papers by Dr. W. L. Richardson and Dr. F. W. Draper, and a series of chemical analyses of articles liable to adulteration, by J. M. Merrick, B.Sc.

Dr. Richardson has devoted himself to the study of tenement houses, an important subject, inasmuch as over one fifth of the population of Boston are housed in this way. The thorough manner in which he handles this subject is made apparent from the interesting details given in his article, and we cordially commend it to the perusal of owners of real estate in parts of the city where tenement houses abound. The reader is strongly impressed with the importance of great care in the construction of vaults, drains and cesspools; a diagram showing an improved method of constructing the latter is annexed, although the writer thinks it is doubtful whether cesspools should be allowed at all in large cities. An important element in the construction of drains and cesspools is the ventilation of the same, which is strongly insisted upon. Dr. Richardson calls attention to the excellent work done by the Boston Coöperative Building Company in building houses of this class. The same experiment has been carried out with perfect success, by Miss Octavia Hill, in England, who has not only redeemed large sections of crowded cities, but has received a very profitable income from the money invested in her charitable enterprises.

Dr. Draper, in his article on the registration of mortality in Boston, points out the various sources of error in the registry of death under the system which has for the last thirty years been in vogue in this city. Among the most important of these is "the carelessness or indifference of physicians, who certify causes without proper discrimination." The office of registrar should be subordinate to the health commission; moreover, the registration officer should be a medical man. A stimulus would thus be given to the profession to be more careful in their returns, and much valuable work might at the same time be accomplished in what has been shown by many eminent men to be an interesting field for medical research. We have already urged a reform in this department in our pages, and we are glad to see the question dealt with by one well qualified to appreciate its importance.

It will be seen that the Board has been alive to the importance of the work entrusted to their charge. The benefits to be derived from

such an intelligent administration of our sanitary department are incalculably great, and both the Board and the city are to be congratulated upon the successful working of the new organization.

From a literary point of view, it might be said of the general report of the Board that it does not partake of that simplicity of style that one would prefer to see in such a document. We note also the absence of an index to the book. We are, however, not disposed to be too critical where such good work has been done otherwise.

A COMMUNICATION, on another page, on the subject of Temperance in Massachusetts, is interesting at the present time in view of a renewal of the contest over the "prohibition" question in the coming autumn political campaign, pointing out as it does some of the expedients resorted to in times past for a solution of this difficult problem. We would particularly commend the perusal of the passages quoted to the ardent supporters of the present State policy in regard to temperance. It may serve to remind them that they may not be the only champions of temperance now in the field; that there are others who have this cause quite as warmly at heart, but who do not feel justified in employing such radical and questionable means of accomplishing their ends.

THE AUTOMATIC MAN.—Under this appellation is given, in the *Gazette Hebdomadaire* of July 17, a curious case which has come under the observation of Dr. Mesnet, of the St. Antoine Hospital. A young man, during the late war, had a portion of the left parietal bone, about eight centimetres in extent, carried away by a ball. Hemiplegia of the right side was the result, but this gradually disappeared. For some time past he has been subject to attacks, lasting from twenty-four to forty-eight hours, attended by very extraordinary phenomena. During these, he seems to act like an automaton, walking continually, incessantly moving his jaw *(machonnant)*, knitting his brow, and appearing absolutely insensible to all that surrounds him. Not uttering a word, he walks straight forward, and when he meets with an obstacle stops short, explores it with his hand, and tries to pass on one side of it. Surrounded by a circle of persons, he stops at each and endeavors to pass by the intervals formed by their joined hands, then turns back, comes in contact with the next person and resumes his round. All this time he never manifests the slightest consciousness, just as if he were in a state of somnambulism. He is absolutely insensible to pain, so that pins may be thrust through the cheeks or into the fingers, or very powerful electric shocks may be administered without the slightest sensibility being manifested. What, however, is very remarkable is, that by bringing him into relation with certain objects we are enabled to determine in him the entire series of acts which are correlated with the sensation thus aroused. Thus, if a pen be placed in his hand, he seeks for ink and paper and writes a letter in a good hand, in which he speaks very sensibly about matters that concern him. If a leaf of cigarette paper is placed in his hand, he feels in his pocket for the tobacco, rolls up the cigarette very adroitly, and, having found his match box, lights it. If the match be extinguished just as it reaches the cigarette, he finds another, and that several times, till he is allowed to light his cigarette. If, at the moment when the match is extinguished another already lighted is presented to him in its place, it is impossible to induce him to light his cigarette by the substituted match. He allows his moustache to become burned without offering any resistance, but will not employ the light thus presented to him.

Among the various experiments devised by Dr. Mesnet, there is one which is particularly curious. The young man is a singer at concerts by profession, and if gloves be placed in his hands he immediately puts them on, and searches for paper. When a roll of this resembling music in form is given him, he places himself in the proper position and begins to sing. It would seem, in fact, that tactile sensation induced in him becomes the point of departure, and as if of escape of a series of acts correlated to their initial sensation—acts which he accomplishes automatically, without letting them deviate from their habitual and regular succession. Lastly, it is noted that, while in this singular condition, the patient steals all that comes within his grasp. If he touches any person, he feels for his watch-pocket, and invariably detaches the watch and puts it in his own pocket, from whence it may be removed without his making the slightest opposition. The crisis once over, he has no recollection whatever of what he has been doing, and becomes again perfectly reasonable.

The questions that such a case must give rise to for the reflection of the physician and physiologist are striking. How, indeed, is such a fact to be characterized? And what idea is to be formed concerning the modifications of the functions of the nervous system which it exhibits? A no less interest must be felt by the medical legist, for evidently during these crises such an individual must be absolutely irresponsible. But how, under similar circumstances, are the facts to be ascertained?

What precedes is a mere sketch of some of the features of this curious case. Dr. Mesnet, armed with all the resources derived from a consummate experience in the study of mental diseases, has had it for some time under consideration, and will immediately publish a memoir upon the subject.—*Medical Times and Gazette*, July 25, 1874.

Correspondence.

Temperance in Massachusetts.

Messrs. Editors,—The reproach of intolerance has so often been cast at our sturdy New England ancestors that we have almost come to look upon them as personifications of that unamiable quality. Such denunciations, however, will not always bear the test of investigation, and I wish now—during the temporary lull in the discussion of prohibitory and license laws—to call attention to the moderate, sensible, and eminently wise spirit evinced by our grandfathers and fathers in their efforts to limit the pernicious effects of intemperance.

My first evidence shall be taken from the statutes of the State of Massachusetts, the same volumes whose pages are now bedizened by the vain glories of a futile and irrational prohibitory law.

In the "Laws of the Commonwealth of Massachusetts, Vol. II., Boston, 1789," may be found the following:—

"An Act to encourage the Manufacture and Consumption of Strong-Beer, Ale, and other Malt Liquors.

"Whereas the manufacture of Strong-Beer, Ale and other malt liquors will promote the purposes of husbandry and commerce by encouraging the growth of such materials as are peculiarly congenial to our soil, and climate, and by producing a valuable article of exportation; and whereas the wholesome qualities of malt liquors greatly recommend them to general use, as an important means of preserving the health of the citizens of the Commonwealth, and of preventing the pernicious effects of spirituous liquors:

"Be it therefore enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, that all Brewhouses wherein shall be made and produced for sale annually a quantity of Strong-Beer, or Ale, not less than one hundred barrels, of thirty-one and a half gallons each, beer measure, with the utensils employed in such Brewhouses, and the immediate dependencies thereof, also all monies and stock of

every kind employed and improved in such Brew-houses, with the Strong-Beer, Ale, and other Malt Liquors which shall be there made, and purchased as aforesaid, with the faculty or annual profit of such manufacture, shall be, and they hereby are exempted from all taxes and duties of every kind for the term of five years next after the passing of this Act.

"[This Act passed June 22, 1789.]"

This act expired by limitation, and no new effort appears to have been made in the following years to control, by legislative enactment, the baleful effects of over-indulgence in spirituous liquors. From this fact it might be hastily inferred that our ancestors were disappointed at the result of their legislation. This assumption is, however, untenable, for the leading philanthropists of the same generation, who voted for this law, banded themselves together, twenty odd years later, into a "Society for the Suppression of Intemperance," which, in the second article of its constitution, pledged itself to the very same persuasive measure contained in the above law. The article ran as follows:—

"The object of the Society is to discountenance and suppress the too free use of ardent spirits and its kindred vices, profaneness and gaming, and to encourage and promote temperance and general morality. . . . . Is it not practicable for labouring people and those who employ labourers to substitute for daily use good and wholesome drinks in the place of pernicious liquors and for all classes of people to refrain from the practice now so general of offering ardent spirit to all who come into their houses?"*

Even the divines of the day did not hesitate to advocate the same lenient but feasible course. The Rev. Andrew Nichols, of Danvers, puts the case so forcibly, in an address to this Society, that I will borrow an argument from him:—

"Notwithstanding my opinion of the use of strong drinks generally, I am now about to recommend the more extensive cultivation of fruits from which, by the addition of sugar, excellent wines may be fabricated, as the most certain means of lessening the prevalence of intemperance. We have to deal with mankind as they are, not as they should be. The taste and appetites of the present generation are already so far vitiated that to expect them to use nothing but the most salutary beverage, cold water, would be altogether chimerical. . . . . Therefore the divine may preach, the moralist reason, and the physician lecture as to the destructive effects of ardent spirits, and still the multitude will continue to quaff the liquid poison until they are furnished with something more innocent, which is equally agreeable to the taste and gratifying to the appetite."†

A note, appended to the address, gives directions for making domestic wines from currants, gooseberries, elderberries, &c., which wines, it must be borne in mind, are not "syrups," but contain quite as much alcohol as the lighter imported wines of France or the Rhine.

Citations might be multiplied indefinitely to show that there has ever been a strong undercurrent of common sense pervading our community and frequently finding utterance by the mouth of one or another of our leading men. One of the most vigorous protests against the folly of the hour emanated from our great war-Governor Andrew, and was made the subject of so eloquent a tribute by the Rev. J. P. Thompson, of New York, that, at the risk of being tedious, I will introduce his remarks:—

"And, I am bold to say here, though perfectly aware that, in saying it, I shall make myself liable to misconstruction and misinterpretation in certain quarters, I am bold to say, that of late years, no argument of statesmanship has been submitted in the hearing of the people of these United States more sound, more true, more certain to commend itself in the long run, to the intelligence and conscience of the American people than the very argument

* The Constitution of the Massachusetts Society for the Suppression of Intemperance, published on the Anniversary of the Society, May 28, 1813.

† Address of the Rev. Andrew Nichols to the Society for the Suppression of Intemperance, April 27, 1819.

which I hold in my hand—the last great plea of Gov. Andrew, for which he suffered no little verbal abuse; his argument in the Representatives' Hall, in Boston, against the 'Errors of Prohibition,' an argument as sound in the interest of morality as in the interest of legislation; an argument of wonderful grasp of facts, an admirable marshalling of fact and opinion from learned sources touching the question at issue; an argument founded upon deep, broad principles, of the very highest morality, proceeding from a thoroughly conscientious soul, and imbued with the spirit of religion. And, though I have been of this way of thinking for very many years, an argument which has brought new conviction to my mind upon these points—that we cannot absolve ourselves from the great duty that the Creator has imposed upon us of maintaining our virtue and morality in a personal contest of will against the temptations of the world; that we cannot absolve ourselves from that and take refuge under a statutory morality, enforced, enjoined by the voice of the majority. An argument showing that it is not the function of a government to regulate all domestic and private life, nor the function of a republic to assume to be a Theocracy, and then to enact, as in the name of God, laws which He did not see fit to enact under the Mosaic Theocracy."*

We who have lived to see an aggressive, domineering enactment imposed upon the people by the voice of a fanatic majority, and, not only its utter failure to accomplish the aims in view, but also the open violation of all laws which it has bred in our community, are ready to recognize the impolicy of interfering with the personal rights of the individual. There is not one of us, however, but is fully alive to the misery and degradation springing from drunkenness, and we would, one and all, coöperate in any attempt to lessen these evils, which was adapted to beings who are still subject to the wants, passions and weaknesses of humanity. JAMES R. CHADWICK, M.D.

* Union League Club of New York. Proceedings in reference to the death of Governor Andrew, Nov. 11, 1867.

NOTES AND QUERIES.

DR. LATHAM says, in the *Lancet*, that "the patient's tongue may be moist and clean, his appetite ravenous, and the typhoid ulcers unhealed. The thermometer alone will tell this, ranging from 100° to 101°."

Not always. I have known severe ulceration to continue, with nearly or quite normal temperature of the body. THERMOMETER.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities for the week ending August 8*, 1874.

Boston, 219; Worcester, 25; Lowell, 25; Milford, 4; Chelsea, 10; Cambridge, 48; Salem, 12; Lawrence, 9; Springfield, 15; Lynn, 9; Gloucester, 6; Newburyport, 4; Somerville, 8; Fall River, 40; Haverhill, 6; Holyoke, 10. Total, 450.

Prevalent Diseases.—Cholera infantum, 150; consumption, 57; diarrhœa and dysentery, 27; typhoid fever, 20.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 15, 220. Males, 117; females, 103. Accident, 8; apoplexy, 4; inflammation of the bowels, 5; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 4; cancer, 4; cerebro-spinal meningitis, 1; cholera infantum, 85; cholera morbus, 1; consumption, 18; convulsions, 4; cyanosis, 2; debility, 4; diarrhœa, 6; dropsy of the brain, 2; drowned, 1; dysentery, 4; diabetes, 1; scarlet fever, 2; typhoid fever, 10; gangrene, 1; gastritis, 1; disease of the heart, 4; disease of the hip, 1; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; inflammation of the lungs, 2; marasmus, 10; malformation of the heart, 1; old age, 6; ovarian disease, 1; paralysis, 3; premature birth, 4; peritonitis, 1; puerperal disease, 2; disease of the spine, 1; scrofula, 1; teething, 1; tumor, 1; tabes mesenterica, 1; umbilical hæmorrhage, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 139; between 5 and 20 years, 9; between 20 and 40 years, 27; between 40 and 60 years, 24; over 60 years, 21. Born in the United States, 181; Ireland, 22; other places, 17.

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Original Communications.

COTTON-WOOL DRESSINGS FOR WOUNDS.

By THOMAS B. CURTIS, M.D., of Boston.

Read before the Massachusetts Medical Society, June 2, 1874.

IN December, 1870, Alphonse Guérin, Surgeon of the Paris Hospitals, now at the head of a surgical service at the Hôtel Dieu, instituted a new dressing for wounds, consisting, mainly, in the use of cotton wool, which is applied in very large quantities around the wounded limb, rendered firm and compact by tightly applied bandages, and left undisturbed for several weeks. Such a treatment was certainly a great novelty, and seems, at first sight, an eminently unsurgical proceeding; any one unfamiliar with the security of the new dressing and its admirable results would shrink from the idea of accepting the responsibility of an amputation stump or of a severely injured limb which must remain hidden from view for two or three weeks; it seems as if irremediable mischief must ensue during that space of time, in the shape of gangrene or retraction of flaps, burrowing of pus, erysipelas and pyæmia, with death or additional mutilation for the patient, and disgrace for the surgeon. Such is the picture that arises in the mind when the cotton wool dressing is first heard of, and even now we wonder at the apparent temerity of the surgeon who first ventured so to depart from the traditions of his art. A glance at the history of this recent innovation will show us that the cotton wool dressing is by no means irrational in conception, nor unsuccessful in practice. On the contrary, it has given such admirable results in the hands not only of its inventor, but of many others, by whom it has been enthusiastically taken up, that we are forced to admit that it must be, at least, worthy of attention and of study, if not of adoption.

During the Franco-Prussian war, and during the Commune, the mortality among the wounded soldiers in Paris was very great, chiefly from pyæmia and allied forms of hospital infection. Dr. Guérin, having charge of large numbers of wounded men, was led to make experiments, with a view to discover some means of averting the terrible complications which made death the almost inevitable result of every gun-shot wound, however treated; believing in the germ theory of putrefaction and of septicæmia, and knowing the power of cotton wool to deprive air of the putrefactive particles which it carries with it, he devised the cotton wool dressing, and immediately applied it in the Military Hospital of St. Martin, and in his wards at the St. Louis Hospital, where his own practice and that of his colleagues had, till then, given the most disastrous results. Notwithstanding the unfavorable conditions in which his first experiments were made, and his

own inexperience in the use of the new dressing, his efforts were crowned by immediate success; other surgeons, surprised at seeing his cases of amputation on the way to recovery, soon followed his example, and were similarly rewarded, after occasional disappointments, due to carelessness or lack of experience in the application of cotton wool. Guérin himself, after the war, was transferred to the Hôtel Dieu, where he found himself in charge of wards which had long been celebrated for their unwholesomeness, chiefly on account of frequent and severe cases of erysipelas. Here, also, his dressing continued to prove successful, enabling him to contend with the various forms of hospital infection which may be said to be endemic in the Paris hospitals, even in ordinary times.

Having thus briefly reviewed the circumstances which preceded and followed the adoption of the cotton wool dressing in Paris, I will now enter into a somewhat detailed account of the theory and practice of this new treatment of wounds.

If we wish to apply Guérin's dressing in an intelligent manner, and to carry out successfully all the rules laid down by its inventor, we must be governed in every step of the process by certain fundamental dogmas, which may, perhaps, still be considered as theoretical, but which have the approval of many of the first pathologists of our time, and which may be said to acquire a considerable measure of demonstration from the success of the very methods of treatment which their adoption has suggested. Therefore, without going at any length into the vast subject of germs, ferments and fermentations, we will simply recall, as briefly as possible, certain data which must be kept in mind if we wish to understand the object and the *modus operandi* of the cotton wool dressing.

The chief danger of wounds which are not rapidly fatal to life is known to arise from secondary febrile complications of an infectious nature. By some pathologists, the different varieties of febrile disturbance following traumatism, of which the most fatal is pyæmia, are all comprehended under the general term septicæmia, which designates a state of general infection, due to the absorption of putrid animal matter from an open wound; the putrefaction of discharges, which give rise to the production of the infecting material, results from the access of contaminated air, the contamination of the air being characteristic of the conditions which constitute what has been called "hospitalism." The nefarious influence exerted upon injured parts by air as it exists in any hospital ward is exemplified by the difference between a simple and a compound fracture. This influence of air upon open wounds is undisputed. But air is a complex body; it consists of various gases and vapors, mixed and holding suspended an infinite number and variety of solid particles, visible and invisible to the naked eye, and comprising animal, vegetable and mineral matter, and animal and vegetable organisms, dead and alive. Is it the air itself, the mixture of oxygen and nitrogen, which is the mischievous agent? Not so, if we may believe the evidence of Pasteur's numerous and most probant experiments, which show that air reduced to its gaseous constituents by heat or by filtration does not suffice to develope putrefaction of animal matter. A striking illustration of this fact, brought forward by Lister, is seen in the absence of putrefaction and consequent hectic disturbance in cases where a collection of blood and air within the

pleura has been the consequence of a fractured rib with wounded lung; here the air, during its passage through the bronchi, great and small, and through the pulmonary vesicles, undergoes a thorough process of filtration, which deprives it of all the noxious particles which it originally contained, and renders its contact with the effused blood quite innocuous.

These facts demonstrate that putrefaction in all its modes requires as an indispensable determining condition the access of air charged with certain materials; and as putrefaction is always accompanied by the development of minute living organisms, it has been plausibly supposed that the latter phenomenon was the cause of the former, and that the noxious materials conveyed by the air were the seeds of living organisms which are invariably found to be developed in putrefying animal matter. Hence the name of "germs," which has been given to the mischievous agents conveyed in unmodified air. It is true that these so-called "germs," unlike the adult organisms to which they give rise in putrescible matter, have not been seen and microscopically identified, and that their existence, being only known to us through their effects, is as yet only hypothetical. Nevertheless, the germ theory of putrefaction is a convenient one, and we will use the word *germ* to designate the unseen *nescio quid* which imparts to air its putrefactive properties, and which can be removed from the air, or rendered innocuous in various ways, namely, by heat, by filtration, or by chemical agencies.

Various modifications of surgical practice have been devised, based on the theory that putrefaction is the source of the septic material, and depends upon the contact of unmodified atmospheric air. These innovations have proved more or less successful and more or less easy of application. The use of chemical agents capable of destroying life in the minute organisms which are supposed to constitute the septic germs, constitutes the chief means of purification of air which has been tried; Lister's antiseptic treatment of wounds affords the most successful and best known example of this use of chemical agents. Until Guérin's experiments, filtration had hardly been tried, or at least not successfully. Tyndall had shown, by his experiments with a beam of sunlight traversing a dark space, that a sufficient thickness of cotton wool would arrest the solid particles conveyed by air in the shape of dust, and Pasteur had established the fact that urine, boiled and put away in flasks stopped up with cotton wool, did not undergo putrefaction. Lister had even made some use of this property of cotton wool, in connection with his antiseptic treatment; but to Guérin belongs the credit of having demonstrated the full surgical value of cotton wool, and of having shown how it must be used; his dressing possesses, as we shall see, other merits besides the paramount advantage of preventing the action of septic influences; this, however, is its main object, and the guiding principle in its application.

We will now consider the manner of applying the dressing, and, for convenience's sake, we will suppose a case of leg amputation at the seat of election. We will first describe the materials which must be in readiness.

The wool itself must be of good quality, tolerably white, and clean and free from foreign matter; if possessed of a glazed surface, this

must be stripped off, and the sheets of wool, torn into long strips about a foot wide, must be rolled up so that they may be methodically applied around the part to be dressed. It is difficult to believe what an enormous quantity of wool may be used in a single dressing; in one of Guyon's cases, of which you see a thermographic chart, I found the wool on removal to weigh over two pounds, and Guérin has sometimes used as much as four pounds. The most common, and, perhaps, the most detrimental mistake of beginners is to apply much too small a quantity of wool.

Besides the wool in sufficient quantity, a number of rolled bandages, two inches wide and eight or ten yards long, must be at hand. The bandages preferred by Guérin are of unwashed linen; but no doubt the cotton rollers used in this country would be quite serviceable. The provision of bandages must be very abundant, as may be recognized when it is known that the bandages removed from some of Guérin's dressings have been found to amount in all to 150 or 200 yards! This estimate comprises the rollers applied at the first dressing, as well as those added subsequently to make the dressing compact, after some loosening of the bandages had taken place. I will say here, that it is a mistake, for reasons that will later become apparent, to use any stiffening substance wherewith to fix the bandages.

The materials being thus supposed ready, we will now describe the application of the dressing. In the first place, the operation and the dressing should never be performed in a septic atmosphere; never, consequently, in the wards. The object of the wool dressing we know to be the exclusion of septic germs from the wound; but this precaution against putrefaction by penetration of germs can only be successful provided we avoid imprisoning other germs under the dressing at the moment of application. The wool should, therefore, be kept stored up in bales out of reach of contamination by the air of the surgical ward, and it should be unpacked and prepared in the apartment in which it is to be used. This was about the only precaution used by Guérin in his early cases; now, after entire cessation of all hæmorrhage, he washes out the wound with a solution of carbolic acid (one per cent.); moreover, he intends, in future, following advice recently given by Pasteur, to purify his wool by subjecting it to a temperature of about 400° F., in a double-walled oven, heated by boiling oil. With regard to ligatures, Guérin uses silk, and cuts the threads off short, except one end of the ligature which holds the main artery of the limb; it would undoubtedly be more prudent to use the antiseptic carbolized catgut of Lister; Guérin's dressing has, nevertheless, been admirably successful without all these refinements, which would, perhaps, if carefully carried out, absolutely annul all possibility of septic infection, even in its mildest degree or form.

Everything being ready, an assistant sustains the limb, which projects freely beyond the edge of the operating table. The first step varies according as immediate union is or is not to be sought. In the first case, sutures can be used, unless the surgeon has acquired sufficient skill in the application of the dressing to be able to secure accurate coaptation of the flaps by the simple pressure of the cotton wool. If immediate union is not to be attempted (and such is the practice generally preferred and advised by Guérin), the space between the flaps, which are held apart by an assistant, is to be completely filled with

little wads of loose cotton wool, evenly superposed. Then the sheets and rollers of cotton wool are to be wrapped and wound over and around the limb, evenly and methodically, so as to surround it with a homogeneous mass, of even thickness, which must, in all cases, extend beyond the first joint above the seat of amputation; thus, for any operation below the knee or elbow, the whole thigh or arm must be included in the dressing; and for any operation higher up, the pelvis and abdomen, or the shoulder and chest must be included. As I said before, the quantity of wool to be thus applied seems at first sight monstrous and absurd; the only way to put on enough, says Guérin, is to put on too much; so long as strong pressure through the wool upon the locality of the wound gives any pain, the quantity is still insufficient, and more must be added.

Now comes the second step, more difficult to accomplish than the first, namely, the application of the bandages. Our object now is to fix the cotton wool securely, so as to prevent its getting displaced, and to apply, through its superincumbent mass to the parts beneath, a very considerable degree of elastic compression, this being, in Guérin's eyes, almost as important a factor of success in the use of his dressing, as is the filtration of air. The first turns of the bandage serve to secure the soft mass of wool, and to mould it, as it were, into something like its future shape and size; oblique and spiral turns are made in various directions up and down the limb, wherever any bulging shows an insufficient compression of the wool, particular care being taken to compress the end of the dressing, as well as its sides; for this purpose, a sort of capellina has to be applied over the end of the stump. Gradually, the cotton wool gets covered at every point, by the successive overlapping turns of the roller, which grow tighter and tighter as the application progresses; at the same time, the mass of wool grows smaller and more compact, while preserving an even surface and a symmetrically ellipsoidal or ovoid shape; the last layer of rollers must be applied with all the strength that the strongest hands can afford; this enormous degree of constriction will give no pain, and do no harm to the injured parts, provided the quantity of wool be sufficiently large. When completed, the dressing forms a firm, smooth, hard mass, of uniform consistency, through which a blow or any strong pressure expends its force without reaching the subjacent parts, and in which percussion gives a sonorous note like that yielded by a healthy thorax.

The patient is then carried to his bed; his limb is laid upon a folded sheet, and covered by a cradle. There now remains little to do, but to carefully watch the patient's general health, and the condition of the dressing. With regard to the dressing, one additional measure remains to be taken; after the lapse of some twenty-four hours, the mass of cotton wool, becoming packed, loses somewhat of its expansive elasticity, so that the bandages become loose; it therefore becomes necessary on the second day to apply another layer of bandages, so as to obtain anew the firm consistency and the elastic compression of the freshly applied dressing; generally, after this second application of rollers, the dressing will keep its consistency and shape undisturbed for many days; still it must be watched, and its defects must be remedied as soon as apparent, by the application of new and tight bandages. It is on account of this necessity to renew the compression

from time to time, as the wool gets packed and the bandages loosen, that the silicated bandage, added by Ollier (of Lyons), does not constitute a happy modification of Guérin's dressing. If all go well, the dressing may be left undisturbed for two or three weeks; we will see presently in what condition the stump and wound will be found at the expiration of this time.

But how are we to know that all is going well under the mass of dressing which conceals the injury from our eye for so many days? We can keep sufficiently informed to allow our minds to be at rest, by carefully watching: 1. The state of the dressing. 2. The general condition of the patient.

1. *The State of the Dressing.*—Some discharge necessarily takes place from the wound; if it be moderate in amount, and if the dressing be sufficiently abundant and compact, the discharge remains confined in the depths of the cotton wool, away from deleterious atmospheric influences. Otherwise, it will soak through the entire thickness of dressing which covers the wound, so as to spot or wet the folded sheet on which the limb rests, or else it may run along the posterior aspect of the limb, between the skin and the innermost layer of wool, and make its appearance at the upper limit of the dressing. In either case, as soon as the discharge reaches the exterior, the spot where it appears should be disinfected by an application of a saturated solution of carbolic acid, and a fresh layer of cotton wool and rollers should be added, so as to completely cover over and bury the weak spot. If these measures be applied in time, no harm will result from a moderate soakage of the inferior portions of the dressing. As time progresses, even in the most successful cases, more or less *odor* is given off by the dressing; in all cases that I have seen, there has been decidedly a bad smell, of a penetrating and somewhat pungent quality, sufficiently disagreeable to make it necessary to resort to deodorizing solutions, which may be sprinkled over the surface of the dressing. The smell, however, is distinct from that of putrefying pus, or of foul wounds in general, and Guérin asserts and shows by experiment that his dressing, applied to a sound limb, acquires much the same smell as that which it gives off when covering an amputation wound. On account of these facts, I think that the odor of the dressing affords, generally, no clue to the condition of things within, unless, indeed, it be very strong and of a decidedly putrid quality.

2. *The general condition of the patient* constitutes by far the most reliable index of the state of things under the cotton wool; as long as all goes well, he is remarkably free from pain, enjoys good spirits, eats and sleeps well; moreover, and here we have the most trustworthy guide, his temperature, taken with a thermometer twice a day, keeps within the limits of a moderate degree of traumatic fever of short duration. The daily use of the thermometer is absolutely indispensable in these cases, and no one should attempt, without it, to carry out the cotton wool treatment. The indications afforded by the thermometer are wholly reliable, and sufficient for the safe management of the case. All untoward events and accidents, as sloughing of flaps, burrowing of pus, contamination of discharges, and septic infection are announced by an immediate rise of temperature, which betrays the unseen mischief, and puts the surgeon on his guard; it then becomes at once his duty to remove the dressings, and to inspect the wound with a view

to remedying, if possible, the unfavorable conditions which have given rise to the trouble; it can, however, be safely asserted that these accidents are very rare, and that they are always due to some defect in the application of the dressings; when these have been carefully and skilfully applied, they may almost always be left undisturbed till the healing process is far advanced, if not almost completed.

Supposing all to have gone well, the dressing is left undisturbed till the fifteenth or twentieth day, when it may be removed; it is then very interesting to observe the appearances presented by the dressings and wound. The bandages being first unwound, or cut through and removed, the cotton wool should be torn open, layer by layer, along the anterior aspect of the stump. When the immediate neighborhood of the wound is approached, the deepest layer of wool is found to be converted by the inspissated discharges into a moist, brownish felt cap, which covers the end of the stump, and which, around the wound, adheres closely to the skin. This adhesion of the deepest layer of wool to the cutaneous surface of the flaps is a favorable occurrence, as it confines the discharge, and prevents it from making its way along the posterior surface of the limb, so as to reach the upper limit of the dressing, and thus come in contact with the outer air. Between the surface of the wound and the neighboring deepest layer of wool is a small space containing a few drachms of thick fluid, resembling pus. This, on examination, is found to be a thick, yellow or brownish, somewhat offensive fluid; when subjected to a microscopical examination, it turns out to be an emulsion of fine, fatty granules, very few pus cells being distinguishable; this condition of the pus is due, no doubt, to the cells having undergone a fatty degeneration, in consequence of the long confinement. Moreover, in cases where the dressing has been completely successful, no traces of vibriones or minute organisms, dead or alive, are to be found. Pasteur himself, whose authority on the subject of ferments cannot be disputed, has lately passed several hours at the Hôtel Dieu with Guérin, examining patients, and in the five cases in which the discharge found on removal of the dressing was examined by him, he failed to detect any minute organisms, such as are the inevitable concomitants of putrefaction. The next striking thing about the discharge is its very small quantity, which often does not exceed half an ounce, in cases where the dressing has remained undisturbed for over three weeks; this is a subject of some surprise, when we reflect how long the discharge has been accumulating, and contrast the amount with that which would have been given off and removed in daily dressings conducted in the usual way.

The discharge being removed, the wound and stump are found to be in a most satisfactory condition. Of course, immediate union is wholly out of the question, when the space between the flaps has been filled with wool; when steps have been taken in view of immediate union, it may be found to have taken place more or less completely by the sixth day. But in the case we are supposing, the wound has granulated from the bottom, and by the end of the two or three weeks that have elapsed, the bone is found completely covered, and the space between the flaps is partly filled by abundant, rosy-red granulations, of the most satisfactory aspect. The limb above offers a perfectly natural and healthy appearance, being neither red nor swelled, and looking as if the operation had just been performed.

The dressing having been removed, and the wound and stump being found in a satisfactory state, as just described, the question arises whether we should now apply a second dressing similar to the first, or resort to one of the usual modes of treatment. Guérin used at first to reäpply the wool, sometimes two or three times, till the wound was completely healed, but it has been recognized that *after a certain stage of reparation was reached, further progress was very slow under the cotton wool.* Guérin's practice now is to remove his first dressing at the end of the second, third or fourth week, by which time he confidently expects to find the bone covered, and the space between the flaps filled to a considerable extent with granulations; then, if the sanitary condition of his wards appears to be tolerably good, he brings the flaps together with adhesive plaster, and applies an ordinary, open dressing. But if the bone is not covered, or if there be reason to fear infection through the exposed open wound, he reäpplies a wool dressing, as before, and leaves it undisturbed for a week, ten days or a fortnight.

Before passing to other considerations, it may be well to briefly recall the important points in the application of the dressing, and in the management of the case. Hæmorrhage must have entirely ceased, and its recurrence must have been carefully guarded against before the dressing is applied. A very large quantity of cotton wool must be laid on, and a very great degree of compression must be brought to bear upon it by means of numerous carefully applied and tightly drawn bandages. Guérin's precept to beginners is to "apply too much cotton wool, and to bandage too tightly." Finally, the patient's temperature must invariably be taken twice a day, in order that any complication may be immediately detected; with this supervision, the cotton wool dressing is a perfectly safe mode of treatment; without it, none, perhaps, could be more dangerous.

We have hitherto been supposing a successful case, in which, the dressing having been skilfully applied, all had gone well. But the conditions are not always so favorable, and certain accidents and complications may be met with, due, almost always, either to the primary injury, or to defects in the dressing.

The fear of secondary hæmorrhage taking place unobserved under the wool has been to many a cause of distrust in the new dressing. I have never seen a case in which secondary hæmorrhage occurred; but Hervey, lately Guérin's interne, in an exhaustive essay upon the subject of cotton wool dressings, asserts that a very slight amount of blood speedily traverses the dressing, and appears at the surface in the shape of a rapidly spreading spot, so that, by proper watching, the accident can always be detected in time; the measures to be adopted are sufficiently obvious, and need not detain us.

Freedom from pain is a striking feature of the cotton wool treatment, as well as one of its great advantages; in a very few hours, the immediate pain of the operation passes away, not to return, provided the dressing, well applied, be subsequently well managed. According to Hervey, persistent pain is only observed in cases where, the quantity of wool being insufficient, air has gained access to the wound, and has set up inflammatory action, or else in cases where sloughing has taken place. This latter accident is rare, not having been met with at all in Guérin's practice. Hervey has seen it a few times in the wards of

other surgeons, and attributes its occurrence in most cases to the primary injury, which had extended farther than appeared at the time when amputation was performed; in a very few cases, sloughing of the flaps appeared to be due to the wound having been too tightly packed with wads of compressed wool; Guérin's practice is, as we saw, to fill the wound with loosely laid wool. Be this as it may, sloughing is rare; certainly not more common than with other modes of treatment.

Suppuration, whether confined in the shape of abscesses, or extensive and burrowing, is not met with in cases where the dressing is properly applied so as to ensure the maintenance of a sufficient degree of compression; on the contrary, the amount of pus discharged at the surface of the wound is remarkably small, and the soft parts of the stump being neither swelled nor red, and offering no features of the phlegmonous condition, are in a state which is exactly the reverse of that which favors deep suppuration.

The subject of erysipelas may be disposed of in a few words. Not one case has been seen among Guérin's patients, although he has lately been applying his dressing in the Salle St. Come of the Hôtel Dieu, where this complication was formerly very frequent and fatal. Erysipelas occurred in one of Verneuil's cases where the first cotton wool dressing was removed, and a second one applied *in the ward*. A similar imprudence was once committed by Guérin, and the patient died of pyæmia. These two cases are forcible illustrations of the noxious influence of contaminated air, and show the absolute necessity of never allowing it to come in contact with recent wounds, unless purified or rendered harmless by one of the physical or chemical means which are at our command.

I have still to speak of fever, a most important part of our subject, on account of its prognostic significance. The limited time at my command obliges me to be very brief, and to confine myself to a few indispensable statements. In the first place, there is almost always a certain amount of traumatic fever, even in the happiest cases; the febrile disturbance is generally moderate in intensity, and of short duration, defervescence being well marked, and followed by a permanent decrease of temperature. So long as the feverishness is of moderate intensity, during the first week following the operation, the patient being at the same time free from pain, and the dressing being in a satisfactory condition, it may be confidently assumed that the case is progressing favorably; but if the temperature remain high after the sixth or seventh day, or if it re-ascend after temporary cessation of the legitimate traumatic fever, there is reason to fear the existence of some complication, which will generally be found to be due to some defect of the dressing, original or acquired. In most cases of this kind, it will be found, on examination, that some discharge has reached the exterior so as to become exposed to the air, and if the weak spot be first disinfected and then protected by the addition of a fresh layer of wool and bandages, the febrile state, according to Guérin's assertions, will subside without occasioning further trouble. Persistent pain, with fever, has been found to accompany sloughing; when these symptoms are present, the dressing must, of course, be removed.

The invasion of pyæmia is announced by the usual symptoms. Guérin does not claim that his dressing gives absolute immunity from

pyæmia in all its forms. It is known that, under certain quite exceptional circumstances, death may occur with metastatic abscesses in the viscera, and disseminated suppuration of synovial and serous sacs, without any open wound having existed, as in certain rare cases of simple fracture; when the infectious influences have reached this degree of intensity, we could hardly expect that patients with open wounds under the cotton wool should escape. But the new dressing does confer, beyond a doubt, a remarkable degree of relative immunity from pyæmia, as well as from the other secondary affections depending upon hospitalism. It is for this reason that the new dressing has been so enthusiastically and so generally adopted among Guérin's fellow surgeons; Professors Verneuil, Broca, Trélat and Gosselin, Drs. Guyon, Panas, Tillaux, Cruveilhier, Duplay, Vidal, Labbé and Desormeaux, all surgeons of the Paris hospitals, and Ollier, of Lyons, have successfully applied the cotton-wool dressing, and have reported cases. No better field could possibly be found in which to test the efficiency of any antiseptic treatment than that afforded by the surgical wards of the Paris hospitals, and the general adoption of the wool dressing, notwithstanding the jealousy with which all innovations are greeted in France, would alone suffice to show that the success attendant upon its use must have been very great. Analogous results have undoubtedly been obtained by Lister, but his dressing is so complicated and so difficult of performance as to have exhausted the patience, sooner or later, of almost all who have tried to imitate his practice, and who had not the affectionate interest of the inventor of a new method to keep up their zeal throughout the arduous labors entailed by the antiseptic method. The cotton-wool dressing, on the contrary, though not *easy* of performance, as might erroneously be supposed, is successfully applied by others besides its inventor, and is giving almost universal satisfaction among those who have learned to use it.

To what cases may the wool dressing be said to be applicable? Undoubtedly amputation wounds have hitherto furnished the most numerous and striking examples of success; among them, we find one case of hip-joint amputation, reported by Hervey, from Tillaux's practice. Immediate union has been occasionally attempted and obtained, with a great saving of time, the dressings being removed as early as the sixth day in some cases; but Guérin still generally adheres to his primitive method of filling the wound with wool, thereby sacrificing all chance of immediate union, and he advises all beginners to imitate this practice.

Resections of joints and partial resections of bones have given good results under the wool dressing. Guérin's first success was obtained in a case of partial resection of the radius, and since then the elbow-, shoulder-, knee- and ankle-joints have been successfully treated after excision, by the new dressing.

Guérin's method has been applied to almost every variety of accidental wound of the limbs, from crushed or otherwise wounded hands and feet, with fractured or comminuted bones, lacerated tendinous sheaths and joints, up to compound fractures and dislocations, with the most extensive injury compatible with conservative treatment. I only mention this class of cases, without going into the manner of applying the dressing in cases of such severe injury. The difficulties of successful application are much greater in cases of compound frac-

ture than in amputations, which are to be recommended for first trials of the dressing; injured hands and feet are also good cases for beginners, as they may be put up in the cotton wool, like amputation stumps, care being taken to separate the toes or fingers with wads of wool. As a rule, it may be said that the dressing is most easily applied to the extremities of the limbs, and that the difficulties of performance and the chances of failure increase as the injury approaches the trunk; it is, therefore, more easy to apply the dressing in an amputation of the leg or forearm than in a case where the thigh or arm is the seat of operation.

In cases of removal of the breast, the wool dressing has been applied with occasional success, but also with many failures. Indeed, the difficulties are so great, on account of the shape and mobility of the thorax, that Guérin has now given up further attempts; the trouble is that the dressing breathes, as it were, with every respiratory movement of the patient, so that it is almost impossible to prevent the air from rapidly gaining access to the discharges confined within the cotton wool.

In conclusion, I will briefly recapitulate the merits and demerits of Guérin's dressing, in order that we may be able to form some estimate of its value in practice.

Its *advantages* are the following:—1st. Entire or partial prevention of pyæmia, erysipelas and hospital gangrene. 2d. Painlessness. 3d. Immobility of the injured parts, to which, with the firm but even compression, is due the antiphlogistic action of the dressing. 4th. The rarity of the dressings. 5th. The transportability of the patient, whose injured limb is protected from all chances of mechanical injury.

The *disadvantages*, on the other hand, are:—1st. The necessity of ceaseless watching of every case by all the means at our command, including the daily use of the thermometer. 2d. The slowness with which the last stages of reparation are effected under the cotton wool. 3d. The more or less disagreeable smell which the dressing generally acquires.

From these considerations, we may conclude that the cotton-wool dressing is most likely to be useful in enabling the hospital surgeon to cope successfully with unfavorable nosocomial conditions, and for this purpose its use during the first two or three weeks may be recommended in cases of amputation or of injury to the limbs, whenever pyæmia or erysipelas are to be feared. In private practice, where the danger of infectious complications is so very slight, the wool dressing loses its first indication, and here, among a more fastidious class of patients, the smell may prove objectionable; then, again, we must remember that the rarity of dressings is perhaps counterbalanced by the absolute necessity of a daily visit from the surgeon. In military surgery, the utility of the cotton-wool dressing may be curtailed to a certain extent by the bulkiness of the material which it necessitates; but, on the other hand, the immunity from septicæmic complications which are so rife in army hospitals, the transportability of the patients, and the diminution of the labor caused by the infrequency of the dressings, appear to constitute very great advantages.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By W. L. Richardson, M.D.

(Concluded from page 189.)

Diseases of Women.

Subacute Ovaritis.—E. J. Tilt, M.D. (*Transactions of the London Obstetrical Society*, xv. 1874.)—The difficulty of correctly diagnosticating ovaritis arises chiefly from the fact that peritonitis obscures the diagnosis by embedding the pelvic organs in a mass which forms, only too often, a hard pathological puzzle. The symptoms may be divided into those known as catamenial and objective.

Although subacute ovaritis may be met with during the whole period of ovarian activity, it is most likely to occur in young unmarried women, from fifteen to twenty years of age, particularly in those who are delicate in body, sensitive in mind, and with proclivities to tubercular disease. When met with in women presenting none of these peculiarities, the patients will be found to have suffered all their lives from menstrual irregularities. Women, suffering from this trouble, complain of habitual pelvic and mammary pain, and especially of a marked aggravation of the nervous symptoms of menstruation, the menstrual flow being usually too abundant, or, as occasionally happens, too scanty. The pain of subacute ovaritis is deep seated, persistent, moderate, bearable, extending from the ovarian region to the knee, and sometimes accompanied by numbness, coldness and anæsthesia of the anterior part of the thigh. The pain gives rise to a certain degree of hesitation in the patient's movements, since she has learned to know that a sudden motion will increase it. Firm pressure on the ovarian region increases the pain and the peculiar nausea which not unfrequently accompanies it. The pain sometimes subsides soon after menstruation, only to reappear, however, a few days before the next period. It is not relieved by a free flow of the menses. Menstruation is preceded and accompanied by a marked aggravation of the usual mammary symptoms of that period, the breasts being swollen, painful and hot. Hysterical phenomena may also be present.

A vaginal examination will often throw a great deal of light on the case, even if it does not finally settle the diagnosis. The left hand should forcibly depress the ovarian region, while the two first fingers of the right hand examine, *per vaginam*, both sides of the body of the uterus. A forcible inclination of the cervix uteri to the side on which the disease is supposed to exist, stretches the connections of the fundus uteri and the ovary to such a degree as greatly to increase the pain. Sometimes the ovary descends into Douglass's pouch, where it can be felt as an ovoid body, about two inches long, either more or less fixed by peritonitis, or fleeing from the finger, only, however, to return, as by a kind of ballottement. This body, when seized, will be found to be semi-elastic and peculiarly sensitive to pressure. A combined rectal and vaginal examination will often be found of great service in making out the diagnosis.

As regards treatment, a well-appointed hygienic course for menstrual

and inter-menstrual periods should be advised, combined with a tonic treatment. Six leeches should be applied to the suspected ovarian region, which should subsequently be painted with oleate of mercury for six weeks, after which counter-irritants may be used.

In all cases where uterine disease coexists, it should be carefully treated, since it will be found impossible to relieve an ovaritis while a disease of the uterus is allowed to continue unheeded. In these cases, in addition to the above treatment, an injection should be ordered twice a day of acetate of lead. Not unfrequently, in these cases, marriage will be immediately followed by a severe attack of uterine inflammation.

Change of Life.—As regards the relations of the change of life to insanity, Dr. H. Sutherland closes a valuable paper *(West Riding Asylum Reports,* vol. iii.; *British and Foreign Medico-Chirurgical Review,* April, 1874) with the following conclusions:—

1. That insanity occurring at the change of life is not usually caused by that condition *per se,* but is most frequently due to some other moral or physical cause coincident with that period.
2. That the age most liable to attack is forty-five years and two months.
3. That the onset of the insanity generally occurs one year after the cessation of menstruation.
4. That the married state does not seem to predispose to that disease.
5. Nor does the number of the patient's children have any predisposing effect.
6. The forms of insanity most common are melancholia, and, more rarely, mania.
7. There is a certain group of symptoms sufficiently characteristic to enable us to diagnosticate a case of climacteric insanity, independently of any knowledge of the history of the case.
8. The prognosis is decidedly favorable, recoveries being over 40 per cent. of those attacked.
9. The duration of the attack is usually more than three months, and less than three years. Complete recovery is not to be expected until twelve months after the commencement of the attack.
10. With regard to treatment, mild sedatives and aperients, a careful watchfulness of suicidal tendencies, and the observance of a quiet and regular course of life, are chiefly indicated.

Gangrenous Vulvitis.—This affection is occasionally met with in young girls as a sequela of scarlatina, a severe attack of fever, or in the course of any serious disease affecting the whole organism. Various remedies have been suggested, with a view of cutting short the rapid spread of the evil. The actual cautery in the hands of Guersant and Trousseau, and the chloride of zinc, as used by Rilliet and Barthez, have, in many cases, proved successful; but both of these methods are exceedingly painful, and oftentimes uncertain in their action.

In a recent article *(Le Progrès Médical)* M. Parrot records the gratifying results which have followed the use of the iodoform powder in the wards of the Children's Hospital (Paris). Until recently, M. Parrot had been in the habit of treating the disease either with a concentrated solution of the chlorate of potash, or by nitrate of silver. The success which followed these methods of treatment was not to be compared with that which he has obtained since the introduction of

the use of powdered iodoform. Within two or three days after its use the progress of the ulcer seemed invariably to be arrested, and the wound would immediately begin to take on a healthy action. The remedy was used very freely, great care being taken that every part of the ulcer was completely covered with the powder. The dressing was always applied daily, and in cases where the discharge from the ulcer was very great, it was found advantageous to renew the dressing at night during the first two days.

Vascular Growths of the Urethra.—Dr. A. W. Edis contributes (*British Medical Journal*, April 4, 1874) a valuable paper on the treatment of this class of growths without an operation. After alluding to the unsatisfactory results which usually follow the treatment of these growths, he advises the use of chromic acid, with which he has succeeded far better than with any other agent. His method has been to apply a saturated solution of the acid by means of some cotton wool wound about the end of a piece of stick. The cotton wool, well moistened with the acid, is to be pressed upon the growth until it becomes shrivelled. Care must of course be taken to protect the surrounding parts from coming in contact with the acid. This can best be done by covering them with lint or cotton wool, soaked in a solution of carbonate of soda. This same solution must be applied to the growth subsequently to using the chromic acid, so as to neutralize any excess of the acid which may be left behind. The use of chromic acid in this way causes very little pain or inconvenience to the patient, while the sensitiveness of the tumor is almost entirely destroyed. It may be necessary to make several applications before the difficulty is entirely removed. These subsequent applications should be made at intervals of a week. Several cases are given in detail in his article to illustrate the treatment he advises.

Dr. Robert Barnes advises (*Diseases of Women*, 1874, p. 767) the application of the actual cautery, using cold-water dressings after the operation. After the sloughs have fallen, the use of an astringent lotion will complete the cure.

Vaginismus.—Prof. Breizky (*Schmidt's Jahrbücher*, 6, 1873) divides this affection into three classes. The first is where it is met with in childless but healthy women, in whom no disease of the genital organs can be discovered. There is an abnormal sensibility during sexual intercourse, which, in some cases, is rendered impossible, owing to the excruciating pain which it produces. The hymen is usually found to be intact. In the second class, local lesions, productive of more or less irritation, will be found, which give rise to a reflex spasm of the constrictor vaginæ. These lesions are various, but chief among them may be mentioned fissures or ulcerations in the region of the hymen, cicatrices of the vulva, vaginal or urethral excrescences and rectal growths. Very frequently, this form of the malady is found in women who have been recently confined. The third class occurs as one manifestation of hysteria, or any other morbid condition of the nervous system.

As regards treatment, the writer discourages too much local treatment as tending rather to increase than to relieve the difficulty. Where any new growth or excrescence exists, it should be removed, and any remaining cicatrices should be divided. The vagina should be dilated, not gradually but forcibly. The former method of dilata-

tion too often causes serious irritation. In cases where the hymen exists, it should, of course, be incised. The dilatation of the vagina may be accomplished by a speculum whose blades are forcibly expanded, or by the hands of the operator.

Fibroid Tumors of the Uterus.—Dr. Bengelsdorf publishes (*Berliner Klinische Wochenschrift*, Jan. 12, 1874) the results of some experiments he has made as to the efficacy of hypodermic injections of ergotin in cases of uterine fibroids. He used the same formula which Prof. Hildebrandt has so highly recommended, but he did not obtain such favorable results. He thinks that the statements of Prof. Hildebrandt require some modification. According to his experience, the value of ergotin in these cases is due to the fact that it acts by contracting the bloodvessels which go to nourish the foreign growth. In other words, an atrophy follows the diminution in the amount of blood supplied to the tumor. Fibromata, which appear after the cessation of the function of menstruation, are not, therefore, acted upon by the ergotin, since, owing to a deficient vascularization of the tumor in these cases, it resembles cicatricial tissue. In chronic metritis, however, the writer has seen marked benefit follow injections of ergotin, the enlarged and painful condition of the uterus and the accompanying leucorrhœa yielding much more speedily than was the case when the remedy was given internally.

Sponge Tents.—Dr. Lawson Tait advises (*Medical Times and Gazette*, Jan. 10, 1874) the use of the oil of cloves as a disinfectant in the manufacture of sponge tents. He claims that tents charged with a five per cent. solution of the oil of cloves will remain for a long time in the uterus without becoming in the slightest degree offensive.

Physicians, who are frequently obliged to use sponge tents, are aware of the extremely offensive smell which a sponge tent acquires after remaining in the uterus a few hours. The use of a wad of cotton wool, soaked in glycerine, and introduced into the vagina immediately after the introduction of a sponge-tent has frequently seemed to the writer of this report to act as a partial disinfectant, but not as satisfactorily as Dr. Tait claims follows the use of the oil of clove.

Dr. De F. Willard has recently reported (*American Journal of Obstetrics*, Aug., 1874) a case of death on the ninth day, following the use of sponge tents.

In the discussion which followed the report of this case at a meeting of the Philadelphia Obstetrical Society, two analogous cases were reported. Dr. Goodell, the President, also reported a case of death, which had followed the use of three sponge tents. He believed, however, that it was not the introduction of the first batch of tents into the cervical canal which did the mischief, but those which were subsequently used. The first tent irritates the cervix uteri and causes a congestion and subsequent abrasion of the mucous membrane. The fœtid discharges or septic material generated by succeeding tents is absorbed by this abraded surface. His custom was to first stretch open the cervical canal by means of a uterine dilator, and then, having introduced the largest sponge tent possible, to insinuate around it several small laminaria tents. In this way, the necessary dilatation is accomplished by one application of tents. During the presence of the sponge tents within the cervical canal, he invariably recommends the free use of detergent vaginal washes.

Boston Medical and Surgical Journal.

Boston: Thursday, August 27, 1874.

Although we have thus far refrained from joining in the hue and cry against those who meditate destruction to the Boston Common under the guise of much needed city improvement, it is not because we are not in full sympathy with the conservative party on this subject. Changes in this country take place so rapidly, and the sweeping away of old landmarks by the constantly increasing demands of business in all our prosperous cities is a matter of such frequent occurrence, that it is hardly to be wondered at that men are to be found who look upon the Common as a serious obstacle to the growth and development of the business portion of the city. To such persons, it avails little to say that this spot is rich in old memories, one of the few links we still possess that bind us to the past, or even that such large spaces covered with pure vegetation are in reality "the lungs of the city." To talk to them about the advantages to the masses of such a resting place during the stifling weather which drives them from close, musty rooms and narrow streets, steaming with indescribable odors, to breathe air cleansed by fresh leaves and grass, is but to excite derision. The "practical business man" is not to be misled by sentiment or theory, and his mind prefers to dwell upon a more congenial picture than the simple beauties of the Common afford.

With Commonwealth and Columbus Avenues extended through to some point on Tremont Street, and such additional "improvements" made as would doubtless suggest themselves, opportunities would be offered for developing valuable portions of the city which now are not available for business purposes. It is true, the Common would greatly suffer, and ultimately be destroyed by this plan, but of what use can it be after we have once obtained a new and larger park beyond the city limits? Such are the views and arguments of a not uninfluential set of men in this city, who would be glad to see streets and shops in place of green grass and shady walks. We believe these men greatly under-estimate the value of an open space in the centre of a large city. Instances of such parks are to be found in nearly all the larger cities of Europe, and to a somewhat limited extent also in this country. In London, particularly, some of the most valuable and central portions of the city are preserved in this way, and to an extent that would make our own park seem small in comparison. When parks are not practicable, we find broad avenues, with plenty of tree shade, supplying their place. This want of open space for vegetable life to thrive in

finds expression in some form almost everywhere, and where this want is ignored, the penalty is sure to be exacted sooner or later. Overcrowding is as dangerous for cities as it is for tenement houses, from a sanitary point of view, while the dangers of fire are greatly increased, to say nothing of the effect upon public morals.

The Common, if it escapes the "improvements" contemplated, will be more appreciated by another generation, when the city shall have far outgrown its present limits. It will then doubtless form the eastern terminus of a chain of parks, some of which will, as they properly should, lie on the outskirts of the city, while others extend into and intersect the crowded centres. We have lately seen a plan for a water park, in which the Boston of the future is graphically represented. The sketch serves to show what the possibilities are with the natural advantages which the peculiar conformation of land offers us. To cut up the Common piecemeal, a result sure to follow any such dangerous precedent as recently has been suggested, or to neglect to enlarge our breathing spaces by uniting them with a series of parks, some of which should involve the improvement of certain waste lands and sheets of water in our immediate neighborhood, will not only violate all sanitary laws, but will, without doubt, seriously interfere with the future prosperity of the city.

We have received the following circular from the Supervising Surgeon, the object of which is to obtain all possible information in regard to the late epidemic of cholera.

OFFICE OF THE SUPERVISING SURGEON,
U. S. MARINE HOSPITAL SERVICE,
Treasury Department, August, 1874.

DOCTOR,—The Supervising Surgeon of the United States Marine-Hospital Service having been designated by joint resolution of the XLIIId Congress, approved March 25, 1874, in connection with a medical officer of the Army, "to confer with the health authorities and resident physicians of such towns [as were visited by the cholera epidemic of 1873], and to collect, so far as possible, all facts of importance with regard to such epidemic"—for the purpose of making a report of the same to the President of the United States to be submitted to Congress—I have the honor respectfully to solicit a detail of the facts which came under your observation concerning the propagation and spread of the disease during that year.

The following memorandum embraces, substantially, the points upon which information is desired:—

1. Name, sex, and age of patient.
2. Residence of patient—town, street and number.
3. Day and hour of attack.
4. Premonitory symptoms, their nature and duration.
5. Progress of the disease:—
   a. Day and hour of beginning of rice-water discharges.
   b. Day and hour of beginning of cramps.
   c. Day and hour of beginning of collapse.
   d. Period and extent of suspension of renal function.
   e. Nature of treatment and result.
   f. Day and hour when convalescence began.

g. Day and hour when death occurred.
h. Post-mortem appearances in detail.
6. Story of house occupied and height of floor from ground.
7. Sanitary condition of house and enclosure:—
i. As to cleanliness of rooms—clean, neglected, filthy.
k. As to ventilation and light—good, defective, bad.
l. As to drainage of house—good, obstructed, absent.
m. As to drainage of ground—good, obstructed, absent.
n. As to location and condition of privies or water-closets, connection with street-sewer, mode of flushing, of ventilation of soil-pipe, disinfection, &c.
o. As to surface water, garbage, or filth about the premises.
8. Source and quality of water-supply. If from a well or cistern, proximity of privy, sewer, or drain thereto, and chance of pollution.
9. General topography of localities in a given town where cholera has prevailed.
10. Character of soil.
11. Character of drainage.
12. Occupation and habits of patient, and whether a resident of house where attacked for two weeks or over.
13. The facts in any case where the patient was attacked within two weeks after removing from an infected district into one previously free from the disease, specifying the respective districts and the character of the exposure.
14. The sequence of cases where more than one was attended, with their relations to each other, and to the cases of other physicians, with names of such physicians.
15. The means and agents used by the physician, by the family, and by the municipal authorities to prevent the spread of the disease, and the result of such preventive measures.
16. Public measures taken to prevent the introduction of the disease into your community, with the result.
17. Temperature, rain-fall, and prevailing winds for as long a period as practicable prior to appearance of cholera, and also during its continuance.
18. Dates of first and last cases of cholera in the locality in 1873—total number of cases and mortality.
19. Connection, if any, between first cases in 1873 and the localities of the disease in the immediately preceding epidemic.
20. Names of cities, towns and villages known to you where cholera occurred during 1873, with any facts relating to the introduction of the disease to such, and the address of some respectable practitioner residing in each of the places named.

Contributions to this investigation, by answers to the foregoing—or to so much thereof as is practicable—will be fully acknowledged in the official report, the value of which, it is hardly necessary to say, will largely depend upon the coöperation of the profession thus sought.

Copies of any reports or papers which you may have already prepared on the subject, or of those prepared by others and annotated or emended by yourself, will also be of service, and may be forwarded, to be returned, if desired. I am, Doctor, very respectfully, JNO. M. WOODWORTH,
Supervising Surgeon.

MANUFACTURE OF CAOUTCHOUC FROM MILK-WEED.—The *Canadian Pharmaceutical Journal* states that a company, having an authorized capital of $100,000, has recently been formed for the above purpose at London, Ont, In one experiment, one thousand pounds of milk-weed were operated on. and it was found to yield four per cent. of caoutchouc. The process consisted in subjecting the plant to partial decomposition, heating by steam, and then treating by maceration with coal-tar naphtha. The benzine, holding the caoutchouc in solution, was then distilled, when the rubber was finally obtained in a solid form.

Correspondence.

Letter from Philadelphia.

Philadelphia, August 17, 1874.

Messrs. Editors,—Philadelphia is stagnant. Houses closed by fifties. The city emptied of those who have means and leisure. Contrary to the supposition which naturally arises when one considers the condition of the streets, the city is unusually healthy and the death-rate surprisingly small. To what is this owing where drainage and cleanliness may be represented by 0?

Dr. Weir Mitchell has recently received a translated copy of his "Injuries of the Nerves," from the French editor and translator of the work. In a preface of forty odd pages, Prof. Vidiau (translator) alludes to Dr. Mitchell in terms warm with appreciation of the brilliant and original genius of the author. This unalloyed praise of an American medical author, and this eager reception and early translation of a medical book born in America, should be a source of deep gratification at home.

Here may follow, as a fitting sequence, details of Dr. Mitchell's treatment of locomotor ataxia, which I promised you last spring.

I have enjoyed frequent occasions of meeting Dr. Mitchell at his hospital for nervous diseases, where I have heard him discuss his method of relieving the disease in question, and much that I may say will, I believe, be an almost literal repetition of his remarks. I will also make use of a brief paper upon the "Influence of Rest in Locomotor Ataxia," which Dr. Mitchell published in the *American Journal of the Medical Sciences* for July, 1873.

It was his quickness of observation and ready power of generalization which led Dr. Mitchell to suspect the profound usefulness of rest in locomotor ataxia, and his paper presents several cases, the very striking results of which, as strong evidence of what rest will do in this disease, cannot be questioned. This paper gives details of five cases of locomotor ataxia of well-developed character, selected not because of any peculiarity in the history of the ataxia, but because of this apparently odd coincidence:—at a period of two to ten years after the initial attack, *every one of the five patients broke his leg*, one of them experiencing first a fracture of the thigh, afterward of the leg. These fractures enforced prolonged rest, during which the ataxia, in the first case, completely subsided, and failed thereafter to reappear. In the second case, the passive rest cut short the pain, which has never returned, and brought about an exceedingly indolent increase in the previously active ataxial symptoms. The third patient (he of the two fractures), up to the date of publication of his case (an interval of four years), enjoyed entire freedom from the disease, the march of which had previously been quite rapid. Case No. 4 broke his leg, went into complete repose, during which he disposed of the neuralgia, which did not recur; as to the ataxial symptoms, however, Dr. Mitchell could learn nothing, the case not having been in his hands. No. 5 suffered intensely painful attacks of neuralgia in connection with the ataxia; the left thigh became fractured, and the patient being at once put to bed, experienced only one attack of pain during the several weeks previous to publication of the case. A sixth patient, in the Orthopædic Hospital of Philadelphia, was a bad case of ataxia in the early stage. In order to test the correctness of his awakened belief in the value of absolute rest in ataxial neuralgia, Dr. Mitchell kept this patient several weeks in bed, no medicine being given until after the lapse of a month or more.

"The result, as to control of the pain," writes Dr. Mitchell, "has most surely been remarkable. Before going to bed, the patient could not walk without aid, nor stand with closed eyes even for a moment. The pain was inconstant, but never left him two days without extreme torment. Six weeks of almost absolute rest enabled him to stand for a few moments with closed

eyes, to walk unaided up and down the room, and to assure me of his entire freedom from pain after the seventh day in bed."

Dr. Mitchell thus concludes his suggestive paper:—

"I do not think these cases can be looked upon as mere coincidences of pain ceasing about the time of injury; I should rather conclude that exercise has power to flush the ganglia used in movement, just as thinking brings blood to the brain and raises its temperature, and that this afflux of blood, or at all events the mere functional activity, is in some way injurious and irritating to the diseased centres. This will seem at least a reasonable view, if we recall the influence of motion upon certain facial neuralgias. Even where there is no tender point, talking or chewing will often cause increase of pain, or awaken pain afresh. Thus, I have lately seen a case of frightful torment in the upper jaw, which was due to acid dyspepsia, and was cured when this state was relieved. The stomachal condition had created, however, a state of the nerve centres of the fifth nerve of such a character that if the patient attempted to talk or laugh it presently resulted in a severe fit of pain. Nor is this a very rare or merely curious example.

"Considering the posterior spinal ganglia and columns as being ready, in ataxia, to pass into the state which gives rise to pain, it seems likely enough that exercise may be efficient in bringing it on. Exercise does not only mean motion in a physiological view of its totality of results, but it also involves the passage centripetally of a host of impressions generated in the moving tissues, and of necessity passing through the central sensory ganglia and their related parts. The centres of motion and sensation are, therefore, active during movement, and are then alike excited, so that we may, with these facts in view, see why motion may excite sensory organs.

"It seems, then, that in the painful stage of locomotor ataxia, motion is probably injurious, and that rest in bed is for like reasons useful. Time, with future experience, can alone be relied upon to determine how general may be the value of some such mode of treatment of ataxia and ataxial pain, and how permanent may prove to be the result. I am perfectly assured, in my own belief, that rest will prove to be the best treatment for the early stages of ataxia; but if I were even less secure in my opinion, I should not hesitate to speak of it as a possible mode of relief, since so little of value has been offered in the way of cure, or even of partial relief in this long and distressing malady.

"It naturally occurs to ask why so many ataxics have chanced to break their limbs; and as to this I should answer, first, that no people are so awkward or fall so much, and next that, in some of the cases, it seemed to me that the habitual abruptness of the muscular acts had a share in the calamity, and that I have suspected, what has not yet been proved, that the bones in ataxics may suffer some impairment of their nutrition, and hence of their strength. Such was the case in Dr. Pennock's case, reported by Dr. C. Morris, where the lesion was sclerosis of the antero-lateral columns of the cord. But this is as yet purely speculative, however full of interest, and what I want to set forward prominently is that I have seen rest cure the neuralgia of posterior spinal sclerosis, and, apparently, in some cases, arrest the disease."

My notes represent Dr. Mitchell's latest views in regard to the treatment of locomotor ataxia, and are somewhat as follows :—

"No one need attempt the treatment of old confirmed ataxics. Catch them in the neuralgic stage, or at the onset of the attack, when eye and vesical troubles exist, and then treat them. For all, save old ataxics, I order *rest* (but that means *movelessness)*, vegetable and milk diet, hypodermic injections of corrosive sublimate, nitrate of silver internally and boldly, watching the gums for the blue line which precedes skin-tinting, and which is, also, I may add, not permanent. I have used all forms of galvanism, and now employ it in the neuralgia of ataxia, but rarely in any other stage. During the neuralgia it is used as in facial (neural) pain, the position of the poles (that is the direction of the current) being of no account. I never *cure* cases. Does any one? Patients with ataxic symptoms get well; those having

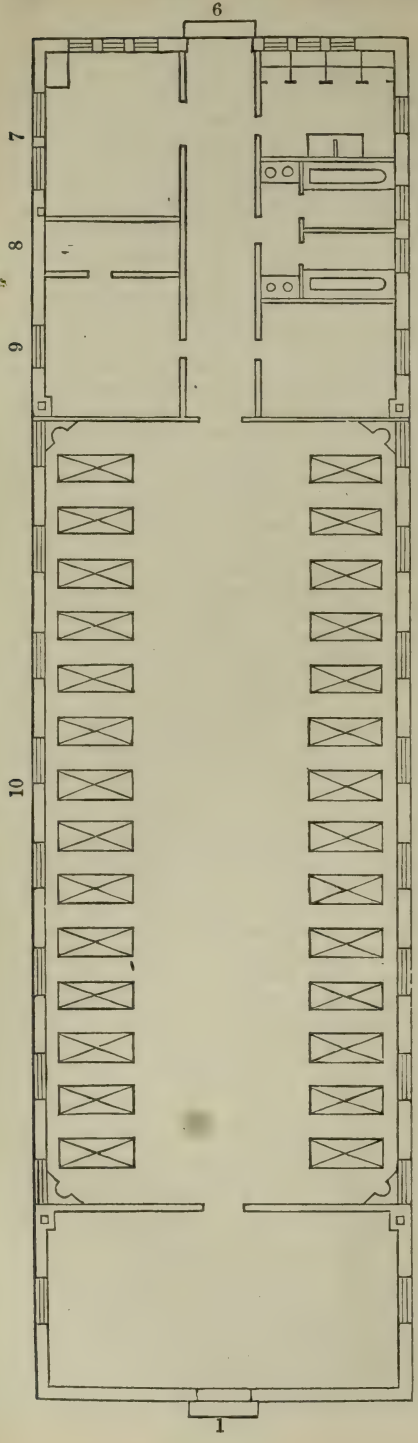
posterior sclerosis (of the cord) do not. The mere rarity of cures is proof that ataxy has not existed where recovery has been claimed."

It gives me pleasure to mention Dr. Mitchell in connection with a new enterprise, to which he is devoting an enthusiastic interest. I refer to a hospital which is to be erected by the managers of the Presbyterian Hospital of Philadelphia. The general plan is that which was employed in the construction of the one-story pavilion hospitals during our late war, and which have already been successfully imitated by the Germans in Leipzig, under the name of the "American Hospital." The plans and specifications of the projected hospital buildings include many improvements and modifications, suggested partly by the imperfections of the army buildings, but more especially by Dr. Mitchell (who has been a prime mover in the resuscitation of what is undoubtedly the best of plans for a healthful hospital), and by his co-workers, among whom the architect, Mr. Joseph M. Wilson, Engineer of Bridges and Buildings for the Pennsylvania Railroad, has been extremely active, lending his fertile intelligence, giving time and drawing up plans and specifications with no other remuneration than what he derives from the pleasure he finds in furthering the work. He will, if desired, also superintend the erection of the hospital. The Presbyterian Hospital has been favored, within the past few months, with legacies of such dimensions as have determined the managers to push the contemplated plan to completion, if I mistake not, within the coming year. Let me try to give you an impression of what the proposed buildings are to be.

The nucleate idea is a hospital entirely composed of one-story buildings. Each building will represent a single ward. Connected with the Massachusetts General Hospital, you have one or two wards thus arranged, but which, I believe, lack many of the healthful conveniences, as well as the utter simplicity of the proposed Presbyterian structures. You will observe that this simplicity, which, by the way, is the dominating feature of individual wards, is almost Spartan in character.

In attempting the description of a single ward, which will represent its fellows, I am happily able to include a ground plan, which I copy from a duplicate of the original plan, which was kindly furnished me by Mr. Wilson, the architect.

I will not give dimensions, since they may be seen in the plan which I draw, without regard to the scale of feet and inches. Taking one ward as a type of all: The building will be constructed of brick, will have double walls, with an interspace of four inches from ground support to roof. Hence the building will wear a protecting suit of brick within four inches of its own walls. The intervening cushion of air will acts as a non-conductor, &c. The floor will be put in at an elevation of five feet from the ground, the subjacent space powerfully ventilated by large, open arches, which are to be constructed every few feet on both sides throughout the whole length of the building. The ground beneath the ward will receive a solid covering of asphalt. The floor will be made of narrow strips of hard Carolina pine, the cracks leaded, the whole to be oiled, and thus rendered water-tight, even as to the wood itself. Like the walls, the floor will be double, and the interspace (six inches in depth) deadened and made solid by a concrete filling. The ward will have rounded corners, above and below; hence no dust can collect. Each of the four curves will be supplied with an open, low-down grate, for purposes of ventilation. Besides these, the building will be heated by a system of hot water. Windows, twelve feet apart, will begin two feet from the floor and reach to within one foot of the ceiling; will be made four feet wide, and be composed of three sashes, the two lower of which will be run by weight and pulley, and the upper turn on a pivot, after the manner of a transom. The sashes will be single, but made so as to receive a *double* glazing. The ward will be fifteen feet high on the square, but twenty-three and one half feet to the ventilator. There will be no horizontal ceiling, the plan being to ceil the inner side of the roof with a plaster so dense as to be impervious to moisture. Outer surface of roof to be slated. Wooden trusses, corresponding to the angle of the roof, will be set eleven feet apart throughout the



length of the ward, and an equal number of straight, iron girders, twelve feet from the floor, will connect the opposing walls. According to the plan, the roof terminates in a ridge ventilator, inside width of which is four and one half feet, and which occupies the entire length of the ward. Drop openings in the ventilator, hinged at their lower sides, will be managed from below by pulleys. The whole arrangement resembles the system of ventilation used in the Pullman palace cars. In the ward there will be wainscoatings, no mouldings, no panels in the doors; the wood work will be well served with oil and shellac, the utmost simplicity observed, and every effort made to prevent infection by any disease whatsoever. Not an ounce of paint will be used in any direction.

The ward will be provided with fourteen beds on each side, with six feet space between their centres. The end rooms, viz., sitting-room, nurses' room, linen closet, operating and bath-rooms, kitchen, &c., will be horizontally ceiled. A very sensible feature will be the glass floors and backs of the urinals. Indeed, it seems impossible to suggest a convenience, or point to a single thing which has been forgotten in this endeavor to plan a hospital which shall possess an absolutely healthful condition, and be freed from endemics and infection. Drainage will, of course, be perfect. The ward kitchen is intended for special diet cooking. General cooking will be done in the centre building, the plan being to have the wards on either side and at the end of the grounds, and to devote the central building to committee and managers' rooms, dispensary, main store closets, main kitchen, &c. Patients will not be allowed to enter this building without special permission. Central

1 South entrance.
2 Sitting-room, 30 by 16 ft.
3 Kitchen, 11 1-2 by 10 ft.
4 Bath and lavatories, 11 1-2 by 14 ft.
5 Water-closets, 11 1-2 by 11 ft.
6 North entrance.
7 Operating-room, 11 1-2 by 16 ft.
8 Linen closet, 11 1-2 by 5 ft.
9 Nurses' room, 11 1-2 by 14 ft.
10 Ward, 30 by 38 ft.

buildings and wards will have a railroad connection. The only ornamental portion of the hospital will be the front of those buildings whose end faces the street, and this will be simple. It is easy to see that the buildings will not only be severely simple and economical, but convenient, and, above all, healthful. The recent proposition to erect cheap wooden hospitals and destroy them by fire at the end of one or two years, becomes insignificant when compared with this better plan. It seems odd that Germany should have caught up and put into successful operation the hospital system which originated in America before we ourselves had made it permanent. UNGENNANT.

LETTER FROM LONDON.

LONDON, July 25, 1874.

IT has not fallen to my lot to hear much medical news in London. There is much interest taken in the inquest on the unfortunate "flying man," who was killed in an attempt to descend from beneath a balloon. With us, it might be argued that it was his own affair, or at most concerned others only inasmuch as they run the risk of being fallen on; but here it is held that the law should protect a man's life in spite of himself. To be consistent, the same law should protect the unwilling victims of chloroform, and perhaps it will in time, for I understand that ether is slowly gaining ground. The fire department has been strengthened in order to cope with the threatened conflagration of the Thames from a correspondence on the "woman question," carried on in the *Times* and *Saturday Review*. Desirous as our readers must be to hear the same arguments for the ninety-ninth time, my regard for the safety of the Frog Pond forbids my repeating them.

The museums present certain common merits and defects. Among the former is the fact that they are not mere depositories of specimens, but are arranged for the convenience of the students who are constantly seen in them at study. At Guy's, there is a long row of tables supporting beautifully executed models of dissections. Nothing, of course, can take the place of the real subject, but it is, nevertheless, a great advantage to have models always on hand. They are far superior to plates. A class of preparations that can hardly be praised too much is to be seen at St. Bartholomew's. It consists of small dissections of important and difficult regions, imbedded in plaster at the bottom of shallow vessels containing alcohol and covered by a plate of glass. They are beautifully clear and instructive. A fault common to these museums, and in a less degree to St. Thomas's, is the way in which specimens of normal and pathological anatomy are mixed together, and with those of comparative anatomy, apparently without method.

The Hunterian Museum stands by itself, and can hardly be judged by the same rule as the others, for it represents anatomy in its widest sense. Nothing can be better than the various series showing the different forms of corresponding bones among the vertebrates; and this system is not applied to bones alone, but to almost all the internal organs and those of special sense. The collection of whales is glorious. One would like to be an anatomical Jonah and be swallowed by each in turn. Among the preparations of human anatomy, several muscular dissections preserved in spirits deserve especial mention; the color, of course, is lost, but the size and shape of the muscles are almost unchanged. I have seen very few frozen sections in Great Britain, but those, as a rule, were good and well mounted. Corrosion preparations, on the other hand, though more numerous, are of little merit; this, in many cases, may be the result of their age. T. D., JR.

"I KNOW of no more wholesome state of mind for the investigation of truth than the ever-present consciousness of the possibility of error."—*West's Harveian Oration.*

Medical Miscellany.

THE fifth Cincinnati Industrial Exposition will be opened on Wednesday, September 2, and continue until Saturday, October 4th.

THE third semi-annual meeting of the New Hampshire Medical Society will be held on Tuesday and Wednesday, September 1st and 2d, at the Oceanic House, Star Island, Isles of Shoals. The Vermont and the North Essex (Mass.) Medical Societies have accepted invitations to join them in the excursion; also the New Hampshire Pharmaceutical Society, and a full attendance of members and ladies is expected.

ACCORDING to the *Medical Times and Gazette*, the patient in whom Billroth performed extirpation of the larynx with such success, an account of which appeared in a former number of this JOURNAL, has since died. The operation was performed on the 31st of December last, and death occurred on July 7th. The cancer reappeared locally soon after the patient's return to his home in Bohemia.

MUNIFICENT BEQUESTS.—A gentleman of Milan, named Ponti, has left his property, amounting to 825,000 francs (£33,000) to the three Academies of Science in London, Vienna and Paris, and to the General Hospital in Vienna, the last-named institution being entitled to any increase beyond the original sum. As the value of the property is now estimated to be £72,000, the hospital is likely to receive a large share. It is said, however, that the relatives of the deceased intend to oppose the will on the ground of the mental incapacity of the testator.—*London Medical Record.*

NOTES AND QUERIES.

WHY cannot apothecaries understand that anisette (a French cordial) is not the essence of anise, or spirits of anise (a vile solution of oil in alcohol), and not substitute the latter for the former in recipes sent to their establishments? Sooner or later, if they continue the reprehensible practice, a "misadventure" will bring discredit upon them, as well as danger to the patient, or death, if of infantile age. Apothecaries should *never* substitute any other drug for that directed without the knowledge and consent of the physician.

A SUFFERER.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending August 15, 1874.*

Boston, 220; Worcester, 34; Lowell, 31; Milford, 5; Chelsea, 12; Salem, 11; Lawrence, 20; Springfield, 10; Lynn, 24; Gloucester, 11; Fitchburg, 5; Newburyport, 16; Somerville, 14; Fall River, 46; Haverhill, 11; Holyoke, 13. Total, 483.

Prevalent Diseases.—Cholera infantum, 162; consumption, 52; diarrhœa and dysentery, 25; typhoid fever, 17.

Boston reports 85, and Fall River 18, of the deaths from cholera infantum.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 22, 193. Males, 93; females, 100. Accident, 5; apoplexy, 3; inflammation of the bowels, 5; disease of the bowels, 1; bronchitis, 1; stone in bladder, 1; congestion of the brain, 1; disease of the brain, 4; cancer, 2; cholera infantum, 56; cholera morbus, 2; consumption, 19; convulsions, 10; debility, 6; diarrhœa, 5; diphtheria, 2; dropsy of the brain, 3; drowned, 1; dysentery, 3; epilepsy, 1; scarlet fever, 1; typhoid fever, 7; gastritis, 1; disease of the heart, 6; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 3; marasmus, 9; old age, 4; paralysis, 1; peritonitis, 3; premature birth, 4; phlebitis, 1; puerperal disease, 2; pyæmia, 1; suicide, 2; scrofula, 1; scalded, 1; tabes mesenterica, 1; teething, 2; whooping cough, 3.

Under 5 years of age, 118; between 5 and 20 years, 14; between 20 and 40 years, 24; between 40 and 60 years, 15; over 60 years, 22. Born in the United States, 160; Ireland, 25; other places, 8.

THE

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Original Communications.

SOME ADDITIONAL REFLECTIONS UPON THE LATE EPIDEMIC OF CEREBRO-SPINAL MENINGITIS.

By J. BAXTER UPHAM, M.D., of Boston.

Read before the Massachusetts Medical Society, June 2, 1874.

GENTLEMEN,—It fell to my lot in the last year to investigate, with some care, the disease which forms the subject of this paper, during its prevalence in an epidemic form in various parts of the State. The purpose of my examination then was to inquire more especially into the circumstances attendant upon the advent of the disease, with a view to ascertain, if possible, its origin or supposed cause. In the course of this inquiry, I obtained, from personal researches and a somewhat extensive correspondence with the Fellows of this Society, a mass of facts which I have thought might perhaps be of some further use to the profession. Under this idea, I have selected the most complete of the cases comprised in the tabular returns received, with a view to a more careful analysis of some of their important features. It will be my aim not to repeat what I have so recently advanced upon this subject, although I must, necessarily, traverse, to some extent, the same ground.

And, in reviewing the labors of my honored predecessors in this field of research, I am struck with the superior facility for obtaining accurate statistical information which we of the present generation enjoy. The able and indefatigable committee, who were charged with the inquiry into the causes and history and modes of treatment of the first epidemic of this disease, of which we have record, in Massachusetts—that of 1810—framed with great care and conscientiousness a series of questions, under seventeen heads, which were sent in behalf of the Massachusetts Medical Society to all its Fellows and other gentlemen of character, in whose vicinity the disease had prevailed. They were published, also, in the principal newspapers of the day, in order (as the report says) that any persons possessing useful information on this subject might be induced to communicate it.

In reply to this circular, the committee affirm that they received communications from twelve persons, all Fellows of the Society; and, likewise, indirect communications from several gentlemen of respectability in the State of Connecticut. And upon this somewhat meagre return, together with the few cases which the members of the committee themselves were able to inspect, was founded that most interesting and instructive Report on "Spotted or Petechial Fever," which appears in the second volume of the Medical Communications and Discussions of this Society, under date of June 21, 1810.

In contrast with the above, the circular issued under the auspices of the Massachusetts State Board of Health, in the month of May, one year ago, brought replies from about two hundred physicians, representing seventy-seven towns and cities, and containing the data, more or less complete, of upwards of five hundred cases of the disease. And I am happy to improve the opportunity, which I may not again have, to tender my sincere thanks to those members of this Society—many of whom are now before me—who have responded so fully and so promptly to the demands thus made upon their time and patience. The consciousness of duty well performed, and the satisfaction of aiding in the elucidation of an obscure and terrible disease, must be your abundant reward.

But to my subject:—It is well known that the disease we are now considering has prevailed to a limited extent, within the last few years, in our own and several of the adjoining States. Dr. Parks, in the able and exhaustive report made to this Society in 1866, has given us a detailed account of all the cases he could collect in the eight or ten years preceding that date. Since 1870, it would appear that the number of cases rapidly increased, till they culminated in the somewhat extensive epidemic of 1873.

I am convinced that I have been able to get together only a minority of the cases that occurred in that year, and of these the data, as a whole, are by no means as complete as could be wished. But the returns are widely distributed over the State, and may be said to fairly represent the ordinary phenomena of the disease. The *name* which has, of late years, been given to this affection—that of cerebro-spinal meningitis—conveys the idea of its essential nature, as manifested in its prominent symptoms and revealed by *post-mortem* inspection; and it points, likewise, to the principal indications to be aimed at in its treatment. It was not possible, within the scope of my communication to the State Board of Health, to more than glance at the general characteristics of the malady in question—to give, in briefest form, an idea of its history, its habits and progress, and gain some hints for prophylactic management in times of its epidemic prevalence.

It will be my object at this time more especially to present a condensed view of the symptoms and pathological manifestations of the disease, based upon the series of cases I have selected, and to consider a few of the many modes of treatment adopted. The number of these selected cases is 315, of which 173 recovered and 139 died,* the ratio of mortality being $44\frac{55}{100}$ per cent. This percentage is almost precisely the same as that of the 517 cases comprised in my recent report to the State Board of Health, and it is interesting as containing, so far as it goes, the statement, already published, that the recent epidemic was a mild one in comparison with many others on record.

In the tabular statements to which I have alluded, the symptoms are grouped under two heads, according to the time of their appearance, whether in the earlier or later stages of the disease. In this way, I believe we are more likely to obtain, from a multitude of observers, such minuteness and particularity of record as will conduce to a more reliable analysis of this important chapter in the history of any epidemic disease. And in regard to these symptoms, as I have elsewhere said, they exhibit great diversity of manifestation; it cannot be expected in any given case that a majority, even of those which legiti-

* Three cases were incomplete.

mately belong to the disease, will be present. This has, no doubt, tended greatly to obscure its diagnosis, on the part of those especially who are not familiar with the affection, who have learned its habits from books mainly. Hence it is important to find out, if we can, the most constant and prominent of the signs and symptoms which pertain to the affection.

The relative frequency of these symptoms, as applicable to the list I have in hand, may be seen by the following tables :—

Table showing the Relative Frequency of some of the more Marked Symptoms in the Early Stages of 315 cases of Cerebro-spinal Meningitis indicated in the foregoing series.

Noted in how many Cases.	Early Symptoms.
61	Chills.
223	Headache.
44	Nausea.
147	Vomiting.
102	Pain in nape of neck.
86	Delirium.
64	Irregularity of the pulse.
57	Pain along the spine.
50	Stiffness of muscles (of neck especially).
49	Retraction of head.
40	Spasms or convulsions.
39	Stupor or drowsiness.
37	Anomalous pains.
30	Opisthotonos.
29	Restlessness.
27	Tenderness over spine.
24	Hyperæsthesia.
19	Prostration.
18	Muscular twitchings.

Table showing the Relative Frequency of the more Prominent among the Advanced Symptoms in 315 cases recorded in the preceding series.

Noted in how many Cases.	Advanced Symptoms.
74	Headache.
84	Delirium.
75	Retraction of head.
62	Opisthotonos.
56	Spasms or convulsions.
54	Coma.
54	Prostration.
46	Irregularity of the pulse.
39	Stupor.
36	Pain in nape of neck.
34	Rigidity of muscles (of neck especially).
34	Dilated pupils.
34	Anomalous pains.
32	Paralysis.
31	Hyperæsthesia.
31	Pain in spine.
55	Petechial spots.
26	Restlessness.
20	Strabismus.
15	Herpes.
15	Deafness.

It must be remembered that I am only attempting to show, by this analysis, the comparative frequency of such symptoms as are sufficiently marked to attract the attention of observers in the series of cases I have adduced. Unfortunately, we are, for the most part, without the negative evidence which, if obtained, would have added greatly to the interest and value of the tables. We can only take them as we find them.

It appears from these tables that chills, headache, nausea, vomiting, pains at the nape of the neck, delirium, irregularity of the pulse, stiffness of the muscles (of the face or neck more particularly), retraction of the head, spasms or convulsions, stupor or drowsiness, and anomalous pains were among the most constant of the early symptoms, being noted respectively in 61, 223, 44, 147, 102, 86, 64, 57, 50, 49, 40, 39 and 37 cases; and, in the later stages, the symptoms and phenomena more frequently observed were headache, delirium, retraction of the head, opisthotonos, spasms or convulsions, coma, irregularity of the pulse, stupor, pain in nape of neck, rigidity of muscles, dilated pupils, anomalous pains, paralysis, hyperæsthesia, &c., these symptoms being noted in 74, 84, 75, 62, 56, 54, 54, 46, 39, 36, 34, 34, 34, 32 and 31 cases, respectively.

It may be interesting to append here a tabular statement, showing, in condensed form, the relative frequency of these more prominent symptoms as noted *at some period of the disease* in all the recorded cases, as follows :—

Table showing the Relative Frequency of the Prominent Symptoms noted at some Period of the Disease in the cases recorded in the preceding series.

Noted in how many Cases.	Prominent Symptoms.
61	Chills.
238	Headache.
147	Vomiting.
132	Delirium.
102	Pain in nape of neck.
102	Retraction of head.
92	Irregular pulse.
90	Pain in spine.
79	Opisthotonos.
70	Rigidity of muscles.
68	Spasms or convulsions.
66	Stupor or drowsiness.
61	Anomalous pains.
58	Coma.
57	Prostration.
55	Petechial spots.
51	Restlessness.
46	Nausea.
44	Dilated pupils.
41	Tenderness of spine.
35	Paralysis.
34	Hyperæsthesia.
27	Muscular twitchings.
22	Herpes.
22	Irregular breathing.
21	Deafness.
20	Strabismus.
13	Contracted pupils.
12	Intolerance of light.

As I have before said, it is not to be supposed that even in a majority of the cases from which these tables are deduced all the important symptoms of the disease have been set forth. I do not claim, therefore, for these numerical statements anything more than a comparative exhibition of the facts and phenomena that more particularly arrested the attention of the physician in his earlier and later visits. Nor can we attach any very great value to such chronological statistics in a disease of so uncertain duration. Its onset is for the most part sudden and unheralded, and, as will appear from an inspection of the returns, the physician's services are generally demanded at once. His first visit dates, usually, within a few hours from the time of the attack. I have classed the early symptoms, therefore, among those which appear in the first three or four days of its course. With this explanation, the summary I have given will, I hope, afford some aid in the prompt diagnosis of this oftentimes obscure affection.

Before leaving this part of my subject, I will dwell somewhat upon a few of the symptoms above enumerated. It will be seen that the disease is not uniformly ushered in by chills or rigors, as is commonly the case with purely febrile affections; and my own experience has been that when such symptom *is* present it is rather a *sense of chilliness* than a well-defined chill. Headache is an early and an almost constant accompaniment, and it is generally of the severest kind. It is variously denominated in the preceding returns as "intense," "very severe," "excruciating," "tearing," "horrible," &c. &c. The delirium may be severe, but it is oftener than otherwise of a kind which, for want of a better term, I will call superficial—by which I mean that the patient can usually be roused so as to answer questions logically, even in the worst cases. There are, of course, exceptions to this rule. Vomiting is an early and pretty constant symptom, with children especially. Pain in or about the nape of the neck, it will be seen, is noted as among the most frequent of the early symptoms. This is oftentimes accompanied with a peculiar sense of stiffness and of tenderness to the touch, and with that other characteristic, oftentimes pathognomonic, sign, retraction of the head. Conjoined with these last, may usually be found the rigidity of muscles referred to in the tables. Irregularity of the pulse is a marked symptom. It indicates, of course, the erratic action of the heart, which has many times sadly confused the diagnosis. So closely, indeed, does this latter symptom simulate valvular disease of the heart as to deceive the most wary. A labored, panting respiration is very naturally joined with the symptoms just mentioned. And I cannot help thinking that it must have existed in more instances than the preceding tables would indicate. Under the head of anomalous pains may be classed the painful sensations alluded to by various writers on this disease, which come on, for the most part, suddenly and unexpectedly, and affect the arms, legs, feet, hands, the stomach or bowels, the joints, &c. &c., without seeming connection or cause. We might speak, also, of anomalous *motions* as pertaining to this disease. One patient is spoken of as indulging in "small, convulsive movements, such as no Christian ever made." Another is represented as striking and spitting at his father. Others are described as "clutching," "kicking," "gyrating," &c." The petechial spots, which are reported as having been present in a limited number of cases, are generally of a hæmic character, and resemble

those seen in the worst cases of typhus. Restlessness and jactitation, with hyperæsthesia, do not assume that prominence in the foregoing tables which my own experience has given to them; and it is quite likely that, in the greater prominence of more important symptoms, these may have passed unnoticed. There is oftentimes great nervous agitation, and a dread of being moved or even touched. The bowels are usually torpid; indeed, constipation is very generally alluded to as the ruling condition in the preceding tables. The temperature is not given as often as could be wished, and when indicated, the period of the day or the stage of the disease has not been particularized. In several cases, however, a very high temperature has been noted, as high as $108\frac{4}{10}^{\circ}$ by Dr. Wm. Read, and in one instance (that of a boy eight years of age), by Dr. Ira Russell, as high as 110°.

We come now to the anatomical characteristics of the disease, which, as might be inferred from the symptoms above detailed, belong mostly to the brain and spinal cord. In fifteen cases only were *post-mortem* examinations obtained. But, so far as they go, they tend to confirm the generally received pathology of this affection. In twelve cases, there was either purulent effusion or a deposit of lymph on some part of the surface of the brain, most often at its base—in one instance, "like fibrine" in substance. In seven cases, there was an increased quantity of fluid in the ventricle, or beneath the arachnoid. In seven cases, there was congestion of the membranes to a greater or less extent. There was a deposit of lymph upon the spinal cord in six cases. In three cases, there was apparent suppuration of the cord. Opalescence of the arachnoid was manifest in three cases; and in one case the membranes at the base of the brain and spinal cord were thickened and adherent. It is much to be regretted that so few autopsies could be obtained. But such as we have will afford a fair opportunity to judge of the average character of the anatomical lesions. And they tally, in the main, with my own observations in other and more limited epidemics of the same kind. According to my former experience, however, it sometimes happens that the most undoubted manifestations during life leave no perceptible trace after death; more especially is this to be anticipated in cases sudden and violent in their accession, and of brief duration.

In reviewing the tabular statements of the list of cases to which I have called attention, I have studied with much care the record of treatment. And I am struck with the manifold and various plans of therapeutic management which have been adopted, and the evident earnestness and faith with which, sometimes, very opposite methods are advocated. Indeed, almost every known mode of treatment, in its every kind and degree, seems to have found its representative here. Thus: one physician, of high standing and influence, gives morphia, Dover's powder, tartrate of antimony and aconite, with calomel and opium, but "*no stimulants*," and brings his patient through in about two weeks with a good recovery; another equally eminent practitioner, in the same town and in the same space of time, reports a perfect recovery upon beef-tea and milk, quinine, carbonate of ammonia and brandy. In the practice of a Boston physician, two cases having the same symptoms, were treated with ergot and the bromides early; later, with opium, quinine and wine, conjoined with milk diet and occasionally a warm bath. The result was, in the one case recovery,

in the other death, in about the same period of time. Seven out of nine patients died in the hands of another physician, who assiduously and conscientiously administered opiates and the iodides, together with tonics and stimulants, and counter-irritation to the parts particularly affected. An eminent country practitioner, who had several cases under his charge, reports that he faithfully administered belladonna, ergot, quinine, brandy, wine and iron throughout the course of the disease and found them in every instance to disagree. Another, in speaking of a three months' case which was still pending, tells us that after the bromide of potassium and the application of cold to the head and neck, and irritants to the spine, added to abundant nourishment with milk and eggs, beef-tea, &c. &c., for the last month his patient had "taken no drug," for no treatment, he adds, seemed to be of any avail; and, on the next page, he continues, in grim despondency, "*result, probably fatal.*"

Another adopted a thoroughly rational, expectant treatment; the bowels were kept open by mild laxatives, pain and restlessness were relieved by bromides and opium; irritation was applied to the nuchæ and upper portion of the spine, and, in later stages, quinine, iron, stimulants, with nourishing diet, were given, *secundum artem*. The result in a majority of his cases was *death*. Another sums up his treatment in the one word, "stimulants," and his next record reads as follows: "*No autopsy was permitted.*" Still another puts under the head of treatment the designation "homœopathic;" the inevitable result was "*death.*"

Seriously, gentlemen, I am puzzled, in the abundant experience which the late epidemic has given us, to discover what course of treatment promises the best. At the Massachusetts General Hospital, the iodide and bromide of potassium, ergot, quinine, with milk and beef-tea, formed the staple management. The same general plan, with the addition of ice to the head and croton oil to the nuchæ, with belladonna and ergotine, constituted the treatment at the Boston City Hospital. A well-known physician of this city puts great reliance upon the exhibition of ergotine and the extract of belladonna, in the proportion of a grain of the former to one tenth of a grain of the latter, for adults, administered every four hours during the acute stage. This combination, in connection with tonics and stimulants, a good diet and the application of cold to the head and occasional irritants to the nape of the neck, was followed by recovery in a large majority of his cases. One gentleman reports a highly favorable result in a series of ten cases treated by the application of hot water to the head, blisters to the nuchæ, a sinapism to the spine and hot fomentations to the feet, followed, at a later stage, by the administration of bromide of potash, the fluid extract of ergot, aconite, stimulants and nourishing diet. Another, who had a considerable experience in the disease, resorted to the old-fashioned application of the "hemlock sweat," as it was administered by our fathers a half century ago, and, as he thinks, with positive advantage. Several observers have thought they saw a marked improvement consequent upon the application of irritants, as above described, to the nuchæ and spine.

It would appear, from the foregoing summary, that no positive plan of therapeutic management has been developed by the recent epidemic. This coincides with my own previously expressed views as derived

from a personal experience of the disease in military camps and hospitals, and confirmed by study and observation elsewhere. Yet, after all, I believe that something can be accomplished in the way of treatment. Bearing in mind the essential element of the disease, a morbid poison acting primarily upon the vital fluid and affecting secondarily and rapidly the meninges of the brain and spinal cord more especially, giving rise to symptoms and phenomena which simulate, while they are not identical with, inflammatory action in these parts, the consequent exhaustion of the vital powers and great perversion of the nerve force, as manifested in the irregular action of the heart, the labored breathing, the restlessness and jactitation and extreme sensitiveness of the surface; remembering, also, the material lesions which are so generally revealed on *post-mortem* inspection, the indications for a rational treatment would seem to be these:—

1. To husband the strength.
2. To combat the tendency to congestion of the brain and spinal cord.
3. To mitigate the intense pain.
4. To calm the nervous excitement.
5. To nourish and support the system till the exuded morbid products can be removed by the kindly offices of nature, and to minister, in the meanwhile, by all the ways at hand, to the comfort and relief of the patient. The choice of means for the fulfilment of these manifest indications I leave to the judgment and good sense of those who hear me.

I am aware, gentlemen, that much more might be said upon the subject of this epidemic, and that the analysis of the tabular returns might be pursued to advantage in other directions than those I have attempted; but I have already reached the limit set forth in my paper at the outset, and I will trespass no further upon your patience.

CASES WORTH KNOWING OF.

By Charles E. Buckingham, M.D., of Boston.

I.—I was called in haste, shortly after 10, P.M., to see a young man 19 years old. He went to bed about 9 o'clock. A gentleman occupying the next room said that he "was roused by hearing him choking and groaning. Went to him, and found him in a sort of crazy condition. Shortly after, vomited what appeared to him to be blood. Could not get him to speak, and he was apparently unconscious." He was walking him about the room. The patient had been out of business for some time. During the preceding afternoon had been to a military review, and ate supper as usual. The sister said that he had threatened to take laudanum. On examining the matters vomited, I found the bloody matter to be strawberries, eaten for supper, and mixed with baked beans eaten at breakfast. There was no smell of laudanum, nor of anything else, except acid from a foul stomach. His pulse was 80. Skin cool. Pupils largely dilated and not responding to light. Resisted all attempts to see into mouth, and, of course, to give him anything by that means. I succeeded in pouring into his stomach, through one nostril, a mixture of a drachm of powdered ipecac in a cupful of warm water. Shortly after, he vomited, and was induced to drink more of the ipecac

mixture. Ten minutes later, he vomited more beans, and became perfectly conscious, talked and laughed. The pupils at once acted normally.

Twenty-five years ago, I was called to the boy's father, in very much the same condition, the effect of eating the peel of an orange. The remembrance of that case, and the striking resemblance of this to it, was a great aid in diagnosis. The boy's talk about taking laudanum was merely thoughtless talk. It was one of those peculiar secondary nervous affections, which, if he had been a teething child, would have probably been a case of convulsions; if a man of seventy, apoplexy and death.

II.—On Saturday, a boy of ten years took about five grains of iodide of potassium, at 10.45, A.M. About noon, began to have coryza and to sneeze. At 2.45, P.M., he repeated the same dose. Had dyspnœa and aching of his lower molars. About 4, P.M., undressed and went to bed, with headache and nausea. I saw him soon after 5, P.M. Coryza excessive; both eyes very much swollen and the left one nearly closed. Face flushed. Tongue clean and very moist. Both parotids very much swollen. Moderate headache. Pulse 100. Dyspnœa excessive. Gave him one twenty-fourth of a grain of sulphate of morphia at 5.45, at 6 and 6.20, P.M., at which time his pains were diminishing. The morphia was repeated forty minutes later. He slept very much, and awoke in the morning relieved of all the discomfort, except that in his eyes, which had nearly disappeared twenty-four hours later.

On placing the hand over the cardiac area, in many people with thin chest walls, we can distinctly perceive the alternate movements of auricular and ventricular systole, with each corresponding diastole; and, of course, we can also readily appreciate any pathological change in their movements. Great increase in their force indicates hypertrophy; but a diminution of that force is by no means to be regarded as a certain indication of atrophy, dilatation without hypertrophy, or even of cardiac debility from any cause—though it may be a sign of one or other of these phenomena, as well as of great pericardiac effusion, pulmonary emphysema, or even simple thickening of the thoracic walls. In many of these cases, especially in pericardiac effusion, but more or less in all, the cardiac shock may be rendered perceptible to the hand by causing the patient to sit up and lean well forwards. In this case, the readiness with which it can be appreciated, and the position in which it is felt, must be carefully noted. Forcible pulsation above the fourth rib, and within the cardiac area, may possibly be aneurismal, but most commonly depends upon dilatation and hypertrophy of the appendix of the left auricle. Forcible pulsation, chiefly to the left of the cardiac area below the fourth rib, with depression of the apex-beat, indicates dilatation and hypertrophy of the left ventricle; while pulsation beneath the lower part of the sternum, with disappearance of the apex-beat, reveals dilatation with or without hypertrophy of the right ventricle, the extent of dilatation being, to some extent, measurable by the amount of epigastric pulsation, the degree of hypertrophy being denoted by the force of the pulsation. When the whole heart is hypertrophied and dilated, a more or less violent shock may be felt over the whole of the cardiac area; and where the hypertrophy is great, the shock may be double—the first forcible and systolic, the second less forcible and diastolic—the result of the rebound of the enlarged heart from the posterior thoracic walls.—"On the Diagnosis of Disease of the Heart," by Geo. W. Balfour, M.D.—*Edinburgh Medical Journal*, June, 1874; *Medical Times and Gazette.*

Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

Anomalies.

The following are selected from the great number of irregularities reported.

T. Zaaijer *(Archives Neérlandaises des Sciences Exactes et Naturelles*, Tome 7, Livraison 5) describes an extremely rare anomaly of the first and second ribs, in which, on the right side, the first rib ended, without a cartilage, more than one inch from the sternum, and rested on a process projecting upward from the second rib, the adjacent surface being covered with cartilage. Another process, directed upward, arose from the sternum, and was connected by a fibrous band with the end of the first rib. The same observer records an instance of a *radio-carpo-metacarpal* muscle arising from the lower part of the radius and ending tendinously on the trapezium and in the annular ligament, as well as by an aponeurotic expansion in the bases of the second, third and fourth metacarpal bones.

Professor Curnow *(Journal of Anatomy and Physiology*, May, 1874) describes two cases of the not very uncommon *cleido-occipital* muscle, going from the clavicle to the occiput, which were remarkable by the presence of fibres coming from the sternum and crossing the *sterno-cleido-mastoid*. He describes, also, a very curious *supra-costalis*, arising from the upper border of the third rib and passing up under the pectorals, and behind the clavicle and the subclavian vessels to the anterior tubercle of the transverse process of the fourth cervical vertebra, where it joined the *scalenus anticus*. It gave off in its course a few fibres to the *scalenus medius*. Curnow has seen a *crico-hyoid* muscle, of which there is but one previous case on record. It occurred on the left side of a male larynx, extending from the upper border of the cricoid cartilage to the lower border of the hyoid, just internal to the larger horn. It was quite distinct from both the *crico-thyroid* and the *thyro-hyoid*.

Construction of the Dark or Double-bordered Nerve Fibre.—By Dr. H. D. Schmidt, of New Orleans. *(Monthly Microscopical Journal*, May, 1874.)

Dr. Schmidt concludes his paper as follows: "In finally summing up the results of my researches regarding the structure of the double-bordered nerve fibre, this will be found to consist of the following parts: 1, of the true nerve fibre, the so-called axis cylinder, consisting of a bundle of *granular fibrils*, enclosed within a distinct sheath of their own; 2, of a semi-liquid substance, the *medullary layer*, surrounding the axis cylinder; 3, of the *fibrillous layer*, consisting of very fine, delicate and smooth fibrils, and surrounding the medullary layer; and, 4, of the *tubular membrane or external sheath*, a thin, structureless and elastic membrane, enclosing all the other parts. Whether, now, the thirdly-named part really exists in the living nerve fibre, or whether it is only produced by coagulation, it must be decided by other, more accurate histological researches than those hitherto made."

Dr. Schmidt shows great patience and ingenuity, but we regret that we must criticize his methods, and decline to accept his results. It is not by separating the bundles of a large nerve like the sciatic of the frog, even without removing it, that nerve fibres will be found in their normal state. The author is disposed to doubt that in the living tissues the nerves appear as single, outlined, homogeneous fibres, a fact which, however, must be looked upon as established.

Osteology.

The Sacrum.—An inaugural thesis on this bone was presented at Paris, by Bacarisse, in November, 1873, which, though needing confirmation on several points, is of considerable value. After a general description of the bone, the author discusses the frequency of its consisting of six instead of five vertebræ, and finds that it occurs in one-third of all cases. This is not due to the fusion with the sacrum of either a lumbar or a coccygeal vertebra, but to the presence of a transitional one between the lumbar and sacral regions. This vertebra is found to articulate more or less extensively with the ilium, and to be more or less coössified with the vertebra below. The promontory of the sacrum, namely, the part which constitutes the projecting, posterior border of the superior strait of the pelvis is formed in the sacrum of six vertebræ, usually by the upper border of the first vertebra, but occasionally by that of the second. As already stated, about one-third of the sacra examined consisted of six vertebræ, but the sacra of this kind comprised nearly one-half of the male ones, and not quite one-quarter of the female ones. Should the lower part of a sacrum be wanting, the number of component vertebræ may, nevertheless, be ascertained by drawing over the front of the bone a line connecting the lower ends of the auricular surfaces. If this line pass above the middle of the third space, the sacrum consists of five vertebræ; if below, of six.

The author then considers the effect of race and sex on the shape of the bone, but we will notice only his results with Europeans. He measures the breadth of the base of the bone above, on front and behind, as well as the distance between the lower ends of the auricular surfaces and the length. Taking first the sacrum of five vertebræ, he finds that all these measurements are absolutely greater in the male than in the female, except that of the breadth of the front of the base. When the length equals the breadth, we may consider the bone male. In woman, the breadth of the anterior border of the base is more nearly equal to its greatest breadth than in man; when the latter exceeds the former by as much as one centimetre, the bone is male. In woman, the anterior breadth of the base is much greater than the posterior. The breadth between the lower ends of the auricular surfaces is greater in the female than that of the posterior border of the base, but the excess should equal one centimetre to make the sign of value. On the other hand, if the latter dimension equals or exceeds the former, the bone is surely male. Bacarisse states that the curve of the anterior surface of the sacrum is more pronounced in the female than in the male, but he does not give this subject the attention it deserves. Though the proportions of the sacrum of six vertebræ are not quite the same as those of five, most of the above rules hold good.

Bibliographical Notices.

A Treatise on Food and Dietetics. By F. W. Pavy, M.D., F.R.S. Philadelphia: Henry C. Lea. 1874.

In the volume before us, the author has brought together and presented in a very readable form a larger amount of information in regard to food than has appeared in any similar work. The first part of the book is devoted to remarks on the dynamic relations and the origination of food. Although the statements and explanations in this portion of the book are, as a rule, in accordance with the teachings of the most advanced science, yet it seems that on certain points the author's ideas are not characterized by that clearness and precision which are so important in treating questions of this sort. We find, for instance, "force" defined as "the power of producing energy," and from the context it is evident that the author regards "force" and "potential energy" as synonyms, though the terms, as used by modern physicists, have very different significations. Again, in considering the force-producing value of various alimentary principles, the author seems to regard oxidation as the only source of force. Thus, he describes the nitrogenous constituents of the food as being "broken up—1st, into a nitrogenous portion—urea—which is eliminated as useless, and, 2d, a hydrocarbonaceous residue which represents capacity for force-production." The force which must be set free by the conversion of complicated albuminoid substances into the comparatively simple urea is here entirely disregarded.

The position which the author early took in opposition to Bernard's theory of the glycogenic function of the liver, has apparently led him to ignore a great deal of the work by which, in recent years, our knowledge of this function has been so much increased. He still asserts "that there is no appreciably recognizable destruction of sugar anywhere effected within the circulatory system," and, unwilling to admit that glycogen can be normally changed into sugar, speculates upon the possibility of its being changed into fat. With this exception, the description of the digestion, assimilation and physiological uses of the alimentary principles is excellent, and deserves higher praise than is bestowed by saying that it is the best in the English language. The discussion of the relation of nitrogenous food to muscular exercise is admirable, and includes an excellent criticism of Flint's observations on Weston, the pedestrian. The brief account of the alcohol question is also extremely clear and well written, and the conclusions arrived at are all that are justified by the present condition of our knowledge. This portion of the work would, however, have been rendered more valuable by an account of recent German investigations in this department of physiology, particularly those conducted under Voit's directions in the laboratory at Munich.

The catalogue of alimentary substances or articles of food is very complete and valuable, the description of the various sorts of alcoholic beverages deserving especial praise. Some remarks on the different methods of preserving food find their place appropriately in this connection.

The latter part of the work is devoted to dietetics, theoretical and practical, including remarks on the diet of infants, diet for training and therapeutical dietetics. The dietaries of the principal hospitals of Great Britain form a valuable addition to this portion of the volume. H. P. B.

Physiology for Practical Use. Edited by James Hinton. New York: D. Appleton & Co. 1874.

Mr. Lewes's old title of the Physiology of Common Life would do for this book perhaps better than that which it bears. For practical precepts constitute but a small part of it, and even then reflect the present state of medical science more by appearing as simple, empirical rules than deductions from what must still be called the ever shifting theories of physiological

science. The chapter on the ear is perhaps the most perfect, being very straightforward, and full of detailed practical advice. It is, of course, by the editor, and we suppose we may also recognize his hand in the sermonizing passages which are frequent throughout the book. These will, no doubt, displease many readers. But they do not displease us, for they in no way resemble the official moralizing of the old-fashioned teleological expositor of Nature with his routine *fabula docet*, but are the utterances of a man of genius, whose religious imagination is simply not to be repressed, although he probably knows that he is expected rather not to use it here.

There is a good chapter on alcohol, and others on sleep and sleeplessness, taking cold, headache, gymnastics, &c. Much physiological information is given in simple language, and the book may, on the whole, be cordially commended to those readers whose minds are not strong enough for the more nutritious food that more systematic but not necessarily larger works will give them. The trouble with all ultra-simple popularizing books is that they give results only without their concrete experimental basis, so that the reader gets a most dreamlike and vague notion of the real *things* described as occurring. A much better, though larger and more thorough book, combining physiology, pathology and hygiene, and written popularly in the best sense, namely, very clearly, is Le Bon's "Vie Humaine," recently published in Paris.

In the chapter on ventilation, this plan is recommended as one of the best and simplest for ordinary rooms:—A piece of wood, three inches high and exactly as long as the breadth of the window, is to be prepared. Let the sash be now raised, the slip of wood placed on the sill, and the sash drawn closely upon it. If the slip has been well fitted, there will be no draft in consequence of this displacement of the sash at its lower part; but the top of the lower sash will overlap the bottom of the upper one, and between the two bars perpendicular currents of air, not felt as draught, will enter and leave the room.

A Conspectus of the Medical Sciences for the Use of Students. By HENRY HARTSHORNE, A.M., M.D. Second Edition. Philadelphia: Henry C. Lea. 1874.

THE object of this manual is to afford a convenient work of reference to students during the brief moments at their command while in attendance upon medical lectures. The work is planned to meet the wants of the old system of medical education, particularly in schools where the "quiz-class" system is largely in vogue. The value of such a book is largely due to the manner in which it keeps the various departments up to the standard of modern medicine. New editions should be frequent, and each time the revision should be carefully made. It is a favorable sign that it has been found necessary in a short space of time to issue a new and carefully revised edition. The illustrations are very numerous, and unusually clear, and each part seems to have received its due share of attention. We can conceive such a work to be useful, not only to many students, but to practitioners, as well; but we should hesitate to recommend it to beginners, and we should be sorry to have it take the place of any of the regular text-books in the libraries of those for whom it is suited. It reflects credit, however, upon the industry and energy of its able editor.

BOOKS AND PAMPHLETS RECEIVED.

Experimental Researches on the Physiological and Therapeutical Action of the Phosphate of Lime. By L. DUSART. Second Edition. Paris. (From E. Fougera & Co.)

Reminiscences. By David Parsons Holton, M.D. Pp. 29.

The Pathology of Inebriety. A Lecture before the Medical and Chirurgical Faculty of Maryland. By Joseph Parrish, M.D. Baltimore. 1874. Pp. 17.

Boston Medical and Surgical Journal.

Boston: Thursday, September 3, 1874.

Among the annual announcements distributed by medical schools at this time of the year, there are none which we have perused with more interest than that of the Medical Department of the University of Pennsylvania. It will be remembered by readers of the Journal that the medical faculty of this institution had succeeded last year in raising nearly half a million of dollars for the purpose of building a hospital and medical school on the new grounds of the University. These buildings are now nearly completed, and before the opening of the winter term will be ready for use. A design of the buildings accompanies the announcement, and plans of the interior of the school are also given. The style of the buildings is highly ornamental, and the arrangements of the school contain many conveniences and advantages not usually thought necessary for what is generally the most forlorn of all buildings intended for purposes of instruction.

We cannot help feeling some regret that the new plan of one-story buildings has not been adopted in the construction of the hospital, as has been done in the case of the Presbyterian Hospital, an interesting account of which is given by our Philadelphia correspondent in the Journal for August 27th ult.

We are glad to notice a step in the right direction in the plan of instruction, as indicated in a modest foot-note, which states that "students who have attended two full courses of lectures on anatomy, chemistry, materia medica, and the institutes of medicine, may be examined upon these subjects at the end of their second course." In their final examination for their degrees, the other required subjects are included. We shall hope, at some future day, to see this foot-note assume a more prominent place in the pages of the announcement, and the plan, therein made optional, to be included among the requirements for a degree. The faculty is to be congratulated on its enterprise, and having now shaken the dust of many old associations and old ideas from its professional garments, we trust it will not rest satisfied with half-way measures, but will before long fully inaugurate a more complete reform in its system of medical education.

The other medical school of Philadelphia, not to be left behindhand, is also energetically raising a sum of money, which, with State aid already promised, will enable the faculty to erect a new building, now sadly needed, and place it on a footing that will enable it to compare favorably with its rival.

The National Sportsmen's Association, a notice of which may be found on another page, may well result in a real benefit. Sportsmen, as a body, have small influence, and do not commonly act with much union or much energy; but they here have a chance to call to their aid the class who make their living by hunting and fishing. This class, if all kinds of fishermen be included, is large, and has power. They supply the markets with great quantities of animal food, of which the chief constituents are ducks, grouse, quails, deer, salmon, trout, smelts, shad and the true sea fishes. With the exception of some species of those last named, all require protection, and such protection can only become effectual through a well ordered system of laws controlling the entire country.

The investigations of the Fishery Commissions of the several States and of the United States have proved that the interests of the fishermen, as well as those of the consumer, require certain protective laws; and every exertion should be made to impress this truth on the men who supply our markets. The men who *keep* the markets may easily be controlled by stringent regulations.

The forty-second Annual Meeting of the British Medical Association was opened on Tuesday, August 11, at Norwich, the retiring President, Sir William Fergusson, in the chair. The President elect, Edward Copeman, M.D., delivered the annual address, after which Mr. Fowke, General Secretary, read his report, which shows the society not only to be relieved from the debt by which it had been embarrassed in former years, but also to have a sufficient sum of money to enable it to make grants for scientific investigations, which hitherto it had not been able to do. The number of members is still on the increase, while the names of the most distinguished members of the profession figure conspicuously either as officers or as participants in the literary work of the Association. The last number of the Association's *Journal* contains the various addresses, the standard of which appears to be nearly if not quite equal to that of last year. The prospects for a successful meeting next year are unusually good, the Association having accepted an invitation from members of the profession in Edinburgh to hold the next meeting in that city. Sir Robert Christison has been made President elect.

Bellevue Hospital.—At a recent meeting of the Commissioners of Charities and Correction, the following resolutions were adopted:—

"*Resolved*, That the Medical Board of Bellevue Hospital shall, on the 1st of September be organized in the manner following, and thereafter the present Board, as at present constituted, shall cease to exist:—

"*First:* On the first of September the following named physicians and surgeons shall constitute the Medical Board of Bellevue Hospital: Dr. Aus-

tin Flint, Bellevue College; Dr. Alonzo Clark, Twenty-third Street College; Dr. Alfred L. Loomis, University College; Dr. Wm. B. Eager, no school; Dr. James R. Wood, Bellevue College; Dr. Henry B. Sands, University College (College of Physicians and Surgeons); Dr. Stephen Smith, New York University; Dr. Ernst Krackowizer, no school.

"*Second:* The members of the Medical Board will, as soon as may be after September, nominate to the Commissioners of Charities and Correction such physicians and surgeons as members of the Medical Board of Bellevue Hospital as will enable the Commissioners to appoint from the persons so nominated ten members in addition to those above named, so that the Medical Board shall consist of eighteen members.

"*Third:* When the Medical Board shall have been constituted of eighteen members, they shall be divided by the Commissioners into three classes. The term of the first class shall be for three years; of the second class, for five years; and of the third class, for seven years. The members of each class shall be eligible for reappointment, and all appointments to fill vacancies shall be for seven years.

"*Fourth:* When a vacancy shall occur in the Medical Board, it shall be the duty of the Board to give public notice through one or more of the medical journals published in the city of New York of such vacancy, and to invite the application of such members of the profession resident in New York as may desire to be candidates for appointment.

"*Fifth:* All applications for appointment shall be considered by the Medical Board, and the names of the candidates who, in the opinion of the Board, are highest in the order of merit for professional ability, attainment and personal character, shall be transmitted to the Commissioners, who will appoint one of the candidates named to the vacancy.

"*Sixth:* The Medical Board will assign the service to its several members, but such service shall be continuous throughout the year.

"*Seventh:* The rules and regulations of the Hospital not inconsistent with the foregoing will be continued in force.

"*Eighth:* That a pavilion hospital be immediately erected after January 1, 1875, on Blackwell's Island, for a Maternity Hospital, to be administered by a separate Medical Board, organized in a like manner to the Bellevue Medical Board."

On the 28th of July, the resolutions were adopted, with an amendment authorizing the eight members to nominate, by September next, a number of physicians and surgeons from whom the Commissioners are to choose eleven additional members of the Board, making nineteen members in all.

The clause relative to the Maternity Hospital was also adopted.—*New York Medical Record.*

KOSTER ON UNRECOGNIZED INSANITY.—Dr. Koster has for some time been engaged in describing a number of persons in whom the insanity was not recognized, albeit they were known to be lazy, incorrigible, always getting into trouble, &c. Some selections from Dr. Koster's "gallery" have already been given in the *London Medical Record*, and we now give the chief points of the summary that he makes *(Irrenfreund*, No. 12). Hereditary taint, although the history was very difficult to obtain in many instances, was nevertheless marked, amounting in round numbers to 60 per cent. The development of the malady is threefold. It comes on either gradually from early youth, as a constantly increasing manifestation of mental defects, such as roguery or vagabondism; or else appears at puberty, or perhaps later still in life, after some such cause as injury to the head, blighted affections, excesses, fevers, &c. The course of the insanity is either by a slow increase of the symptoms, or by excitement, fury and destructive tendency. Hallucinations of the higher senses are rare, and still more so are fixed delusions. In one girl and in three men, a state of dementia rapidly supervened, with motor paralysis; whilst in two there were optimist feelings, and in the other two a state of melancholy. The form of the disease is not pure, but rather mixed. Based

on a state of melancholy or moroseness, there are frequently large and supercilious notions superadded. The melancholy takes an active form in the way of suspicion against the family surroundings and the world in general, disposition to show anger, and constant bemoanings and complaints. Sometimes the patients take to listless wandering about, at other times they fall rapidly into dementia. The individual symptoms vary according to the peculiar temperament of the person; some may be altogether absent, but there is in most, if not in all, instances an abnormal state of irritability, to which may be added lesions of common sensibility of the most various kinds, insane feelings amounting to fury of the highest degree. This irritability much resembles that seen amongst epileptics, who form the *enfants terribles* of asylums. It is especially among women that complaints are made, and then they assume the hysterical form, pointing especially to the præcordial region, the head, the uterus, or a general feeling of weight and pain in the limbs. At times, however, the men complain also, and one is inclined to attribute to them either simulation or exaggeration. Most of the persons of this class are inclined to intrigue, lie and quarrel, and to shirk work. This shirking of work shows itself in different ways. Some will occupy themselves for a time in a light occupation; others only under constant supervision and stimulation, and even then they adduce the most trifling excuses to be spared the labor; whilst many are absolutely incapable of work in any form. One very striking phenomenon is an irremediable chattering, a sort of brain-diarrhœa, and they may be listened to for hours at a time without any definite conception of what they are talking about. Others, on the contrary, refuse to answer the questions put to them, or will only converse with certain individuals. Absolute and concrete delusions are seldom met with, though there may be an exaggerated self-feeling, and they talk of being "occupied with their own affairs," without time to attend to the work placed before them. Periodical exacerbations are witnessed, chiefly shown in emotional excitement, and at times they amount to positive fury. It is now that attempts to escape oftenest occur, whereas, as a rule, in spite of their complaints and discomfort, they are well contented with the asylum. The bodily condition is mostly good, and many have an attractive appearance and intelligent expression. Notable bodily defects are wanting, though on close examination it is apparent that one may have a peculiar skull-formation, in another the face is non-symmetrical, and a third may show a decided scrofulous habit. Impulse to drink amongst the men, and sexual propensity in the women, have been said by some to be constantly met with, but this is not accordant with Dr. Koster's experience. An exact and scientific inquiry into the houses of ill-fame in large cities might discover that many of the denizens are persons of a low degree of intellectual power. It remains a fact that all these people have been hitherto wrongly estimated, and on the ground of public morality have been placed in inappropriate institutions; whence, on the supervention of an attack of melancholy or fury, they have been removed to an asylum as incurable or only capable, under constant supervision, of improvement. Good food, tepid baths, and injections of morphia, with rest in bed, are the principal therapeutic measures. We may recognize here a group of cases which, from their development, cause and symptoms, vagabond life, hereditary influence, irritability and perversity, with periodic exacerbations and remissions, may be classed as "deluded rogues and parasites of society."—*The London Medical Record.*

Treatment of Fracture of the Skull.—Dr. Corley, of the Jervis Street Hospital, Dublin, records a series of cases of fracture of the skull, and, in his final observations, enumerates the injuries of the cranial bones for the relief of which trephining has been practised, which are as follows:—

1. Simple Fissure. For this fracture, the operation should never be performed. True, that, accompanying the injury, there may be localized extravasation of blood; or, subsequently and consequent upon it, there may be

formation of matter, which may require the application of the trephine, but the operation then has no reference to the fracture.

2. Simple Comminuted Fracture. A fracture may be simple externally, but the inner table may be more extensively fractured, and fragments may wound the dura mater or brain. This condition cannot be guessed at until symptoms of intracranial mischief arise; for them, and not for the fracture, we may trephine.

3. Depressed Fracture. Dr. Corley does not make any distinction between simple depressed and compound fracture as to operative treatment. The latter is more liable to be followed by intracranial mischief. As long as no symptoms are present, or, if present, until we have tried all other means of removing them, we should not operate. If obliged to interfere, we do so with little hope, as the symptoms are most likely to own an origin other than the depressed bone.

4. Depressed Fracture, Comminuted, including that which is known as "punctured" fracture, such as may be produced by the stab of a pointed weapon, kick of a horse, or blow of a sharp stone. In many cases of this description, it may be necessary to operate at once, whether symptoms be present or not. If the surgeon has reason to believe that in a punctured fracture spiculæ of bone are impinging on the surface of the brain and lacerating it, he is bound to interfere at once. The cause, nature and position of the injury, and the peculiarities of the symptoms, if any be present, will all be of value in assisting him to arrive at a correct determination. However, in this case, the only one in which interference should be sanctioned without symptoms, much must be left to the experience and judgment of the surgeon.—*Dublin Medical Journal, April*, 1874; *Practitioner*.

M. Pasteur.—The French Government lately laid before the National Assembly a bill for granting to M. Pasteur, who retires from his professorship at the Sorbonne in consequence of failure of vision, a national recompense for his important and valuable contributions to science. It is proposed to grant him an annual pension of 12,000 *francs* (£489), being nearly the amount of his emoluments at the Sorbonne; the payments to commence as soon as the bill should be passed by the Assembly. After his death, his widow is to have annually one half of the above named sum. The Commission charged with the examination of the bill, in presenting their report on it, recommended the Assembly to approve it on the following grounds:—

"In voting the pension, you will accomplish an useful work—an useful work, because the *éclat* of the recompense granted will arouse the attention of the most careless, and will contribute to the triumph of scientific method over obstinate routine; an useful work, for the learned, recognizing the anxiety of the representatives of the nation and assured for the future, will pursue their labors with an ardor untrammelled by painful cares; a work of special utility, at a moment when international communication and multiplied commerce, bringing good and evil alike, threaten to strike our agriculture with scourges against which science alone can defend it; an useful work, finally and above all, because it will be an act of justice."

When the bill came on for consideration in its turn among the orders of the day, the Assembly at once voted urgency, and passed it during the same sitting. Twenty-four members only voted against it.—*British Medical Journal*.

The Peculiar People again.—Thomas Hinds, a member of this sect, was lately charged at the Woolwich Police Court with the manslaughter of his child, Joseph Hinds, aged two years, through neglecting to provide it with proper remedies and attendance during its illness. The coroner's jury had returned a verdict of manslaughter against him. The child was ill for three weeks, and frequently in convulsions; but the parents, following the

practice of the Peculiar People, sent for one of the elders, named Hurry, who anointed it with oil and prayed over it. A *post-mortem* examination showed that death resulted from pleurisy and pericarditis. The prisoner, who said that all he had done was for the glory of God, was committed for trial.—*Dublin Medical Press and Circular.*

Correspondence.

Letter from Paris.

PARIS, Aug. 8, 1874.

THE Musée Orfila, always interesting, is doubly so as seen in comparison with the English collections. I do not mean, as yet, to say it is better, but that it is different. Nationality crops out as much in the dissection of a leg as in the cut of a coat. The Museum is too well known to justify a general description, so I will confine myself to certain parts. One striking feature is the number of preparations of the fasciæ, for the study of which the French school is preëminent. Even the Germans, who are probably the most thorough anatomists, treat this branch rather superficially. The preparations of the fasciæ of the abdomen, thigh and perinæum make clear, at once, many points which diagrams and pictures leave unexplained. The corrosion preparations are of various merit, the best surpassing any I saw in England. I looked forward, however, with the greatest interest to the muscular preparations, anxious to learn if Brissaud and Lascowski's flexible ones were as fine as when they filled me with wonder five years ago. They are still there, and newer ones with them, but, alas, their glory is departed. None were red, and all looked shrunken and hardened. They were not spoiled, but greatly deteriorated. There is no doubt that such preparations are of value; it is well to have them on hand, but it is, I fear, very doubtful if they can be made to withstand indefinitely the action of time, and it is certain that they cannot do so if they are used. Near these were several others, and, I think, older muscular preparations, by Suquet. His method may be found in his work on "Embaument," and consists in injecting the part to its greatest capacity with a solution of gelatine, which, by hardening inside the capillaries, makes the muscles larger and firmer than is normal. The part is then dissected, painted with appropriate (?) colors and varnished. These preparations appear to keep quite unchanged, but, with a few exceptions, they are horribly ugly and unnatural. Many, before now, have labored to make good imitations of the human body, but it has been reserved for Suquet to make the human body look like a bad imitation.

As a whole, the Museum is very fine, and, though in many parts open to the criticism of owing too much to artificial embellishment, it probably surpasses any in London, with the exception of that of the Royal College of Surgeons, with which it cannot properly be compared. T. D., JR.

Letter from Vienna.

[From our Regular Correspondent.]

VIENNA, AUSTRIA, July 22, 1874.

MESSRS. EDITORS,—The International Sanitary Congress, now in session in this city, has been laboring for several weeks past, its especial object being the regulation of quarantine in case of Asiatic cholera. The questions thus far discussed were the following, viz.:—1st. If cholera made its appearance in a certain locality, whether intercourse should be allowed with non-infected localities by communication on land, on the rivers and on the high sea? 2d. The best measures which should be adopted to prevent the extension of cholera and the value of disinfectants to destroy cholera poison. The Congress, composed of the most eminent sanitarians of the day, is divided into two

camps, one party insisting that the strictest rules should be adopted to prevent persons from infected places to hold intercourse with persons from non-infected places; the other party—who carried their point by a considerable majority—claiming that it is impossible to interrupt railroad and steamboat travelling by law; that, even in time of war, blockade runners take the risk of being captured and perhaps of being shot as spies, and still no law can prevent them from having intercourse with both of the belligerents. It would, therefore, be useless to pass any law for the purpose mentioned. The Congress came to the conclusion that land and river quarantine would be useless. As regards communication by sea, the Congress deprecates the detention of ships coming from infected ports, but they recommend the establishment of hospitals at all seaports for the immediate reception of patients who are suffering from cholera upon their arrival at a station. All persons on board such an infected vessel to take baths before going on shore, and to change their wearing apparel. As to the third question, it was answered in the negative, that, up to the present moment, there were no disinfectants known that would destroy the cholera poison; still it was advisable to use them, as they might be beneficial. The first Secretary of the American Legation here, Mr. Delaplaine, through whom I applied for a ticket of admission, has received the assurance from the President of the Cholera Congress, Herr von Gagern, that the minutes of the proceedings will be placed at my disposal, and the question being of such vital importance to the United States—who, I regret to say, are not represented in the Congress—I will send you the most interesting portions of the same. Through the courtesy of one of the members of the Congress, I am enabled to send you the names and titles of the members.

Germany is represented by Prof. Pettenkofer and Prof. Hirsch.

Austria and Hungary.—Baron Gagern, President of the Congress; Albert Glandstatten, President Austrian Marine; Francis Ulrich, Cabinet Councillor in the Department of the Interior; Chs. Haardt de Hartenthuren, Councillor Interior Department; Dr. Drasche, Head Physician, Rudolf's Hospital; Prof. Chs. Sigmund, Chevalier de Honor ; Dr. Leopold Grosz, Councillor Hungarian Marine Service; Dr. Josef Schlosser, Royal Physician, Hungary; Dr. Hector Catinelli, Councillor Marine Service.

Belgium.—Dr. Henrard, Inspector Sanitary Service, Department of the Interior; Dr. Lefebvre, Prof. of Pathology, University of Louvain. Dr. P. A. Schleiner, Chief Physician, Copenhague.

Egypt.—S. E. Colucci, President Sanitary Service; M. De Régny Bey, Secretary Sanitary Service.

France.—Baron Maximilien de Ling, First Secretary of French Legation, Vienna; Dr. A. Fauvel, Inspector General, Sanitary Service; Dr. A. Proust, Professor in Paris.

England.—Dr. Dickson, Physician of the English Embassy at Constantinople; Dr. Ed. C. Seaton, First Officer Assistant of the Sanitary Council in London.

Greece.—Dr. Orphanides, Professor at Athens.

Italy.—Mariano Semenola, Professor of Materia Medica, Naples.

Luxemburg.—Dr. Schmidt, President of the Society of Natural History.

Norway.—Le Dr. T. Kierulf, Chief Physician, Interior Department. Dr. Klaus Larsen, Sanitary Officer of the Norwegian Army.

Netherlands.—H. L. Reeder, Marine Surgeon, 1st Class; Dr. H. Van Kapelle, Chief of Division, Department of the Interior.

Persia.—Dr. J. E. Pollak, Hekim Paschi, Body Physician to the Schach of Persia, Interpreter of the International Sanitary Congress.

Portugal.—Dr. José Thomas de Souza Martius, Professor of Medicine at Liede.

Roumania.—Dr. Marcovitz, Professor at Bukarest.

Serbia.—Dr. Etienne Miloshavlevitch, Chief Sanitary Officer, Interior Department.

Sweden.—Dr. N. J. Berlin, Director General and President of the Medical College.

Switzerland.—Dr. Chs. Zehender, District Physician, Zurich; Dr. Adolf Ziegler, Secretary Medical College at Berne.

Turkey.—Dr. Bartotelli, Inspector General, Sanitary Service; Ali Bey, Member of the Sanitary Council at Constantinople.

As mentioned above, the Austrian Government, through her ambassador at Washington, has invited our Government to send a representative to the Congress, but up to this day no one has appeared in that capacity.

The meetings are held in the building of the Interior Department, with closed doors, and no one is admitted except the regularly accredited members representing the countries mentioned. The proceedings, however, are published daily in the papers of this city. The language used is the French, only the German delegates, Pettenkofer and Hirsch, speaking German, which is translated into French by Dr. Pollak. The members have been received with the greatest cordiality by the Emperor of Austria, who entertained them at Schönbrunn, near Vienna, at his summer residence, where they dined and wined to their hearts' content. After the final adjournment of the Congress, I will be able to give you a full and detailed account of their deliberations, and I give you these meagre data only in anticipation of the results attained at the end of the session. Very respectfully yours, RUDOLF TAUSZKY.

TRANSFUSION.

MESSRS. EDITORS,—In the recent periodical medical literature on Transfusion, the experiments of Hasse, with direct transfusion of lamb's blood, occupy prominent and very favorable mention. Hasse's published cases followed those of Gesellius by about a year, and seemed to set the success of the method beyond doubt.

In the last number of the *Archiv für Klinische Medicin* is a paper on the same subject, known, no doubt, to many of your readers, but the results in this series of trials are so opposed to that obtained by the above-mentioned experimenters that they deserve wider circulation.

The article is by Drs. Fiedler and Birch-Hirschfeld, of Dresden. Their own trials cover six cases of tuberculosis—four in the earlier, and two in the later stages.

The amount of blood injected varied between 50 and 150 grammes. During the transfusion, there was noticed redness of face, neck and body, increasing to cyanosis, great distress, dyspnœa, excessive pain in sacral region, so that in each case the operation was broken off by the urgency of the symptoms. The phenomena immediately following were long-continued chills, followed by a rise in the temperature from 1° to 4° C. Urticaria, ecchymoses and hæmaturia were observed in some of the cases.

The final result gave in no case any improvement in the thoracic symptoms, and only one seemed to derive any benefit whatever.

Eight other cases, outside the hospital, are adduced, and the statement is made "that the physicians who operated are not able to prove, in a single case, a beneficial result following the transfusion of lamb's blood in tuberculosis."

Sander's seven cases (*Berliner Klinische Wochenschrift*, 3d April, 1874) are said to have resulted in a "temporary improvement in appetite and nutrition" set off by the threatening symptoms occurring at the time of operation. Winckel's one case of pyæmia ends fatally, and the *post mortem* reveals coagula in the pleural cavity, the result of the transfusion.

In their criticism of these cases, the authors sum up the results of this method of treatment in tuberculosis as follows: "We consider it unjustifiable to employ further with the unfortunate victims of consumption a procedure which must be considered by no means free from danger, and to which, from our observations, we cannot attribute the slightest therapeutical value."

W. W. LOVEJOY.

Radical Treatment of Hæmorrhoids.

Messrs. Editors,—July 9th, A. B., a young gentleman residing in this city, called upon me for treatment, having several very painful external hæmorrhoidal tumors. Being unwilling to have either ligatures or excision resorted to in the treatment of his case, I made applications of solid nitrate of silver to each tumor, using charpie saturated with Monsel's styptic as a dressing. Each dressing was held in place as long as possible by strips of adhesive plaster. These applications and dressings were continued at intervals, every other day at first—later, every three days—until nine applications had been made. On July 25th, the tumors were obliterated, each having sloughed off.

During the treatment, I prescribed pulvis sennæ compositus (which kept the bowels in the required fluid condition), ordering the patient to abstain from all stimulating food. After the second application, the patient was able to attend to his business as usual, the pain having entirely subsided.

Respectfully yours, J. H. Johnson.

Providence, R. I., July 28, 1874.

Simple Method of repairing Registering Thermometers.

Messrs. Editors,—My registering thermometer, after being used two or three times, becomes worthless, as I was informed by one of our instrument makers, in consequence of the needle being shaken down and uniting with the mercury at the bottom of the glass. He said he had a number of his own spoiled in this way by gentlemen examining them in his store, and that he could not repair them. He "would sell me another," and gave the valuable advice to "be more careful with it."

I declined to invest again in an article so easily made worthless, and set about repairing the old one, and succeeded after a number of experiments. Applying gentle heat to the bottom, the mercury quickly rises to an expansion at the top of the glass. Permitting a very little to enter this expansion, a sharp, quick blow on the top breaks the column in a number of places. Shaking all down into the lower bulb, a little remains at the top to form the needle. This is forced out by considerable heat; then partially shake down, and the instrument is again serviceable. If too much mercury rises into the upper expansion, the needle is made too long, or perhaps the top of the glass is broken off.

H. J. Barnes, M.D.

Boston, July, 14, 1874.

California and Phthisis.

Boston, July 15, 1874.

Messrs. Editors,—The following extracts from the letter of a patient, who went to Santa Barbara, California, may be of interest to some of our profession, who have heard that all patients who go there with consumption get well.

C. E. B.

"The wind is blowing, and walking is consequently unpleasant, on account of the dust. There is much sickness in town at present. Some ascribe it to the bad water the town is supplied with. In my immediate circle of friends, every one seems to be sick. Mrs. —— says her husband is losing flesh rapidly, although, to me, he is looking well. Mr. * is going home next Sunday. He looks like a walking skeleton. Mr. * * would go home, but he has no home to go to. Mr. A. B. is miserable, and wants to leave Santa Barbara and go across the mountains. Miss C. D. is sick, lungs affected, and her father a doctor, who says he must move to a healthier locality. I think Santa Barbara rather a failure, as regards her wonderful curative powers. I suppose there are some, but I do not know one who has received lasting benefit from the climate. . . . I feel about the same as usual, but see no difference in my cough."

Medical Miscellany.

G. P. PUTNAM'S Sons, Publishers, have issued a circular, calling attention to a new quarterly journal of skin and venereal disease, entitled the *Archives of Dermatology*, which is to be edited by Dr. L. Duncan Bulkley. Each issue will consist of 96 octavo pages with suitable illustrations, special attention being given to photographic work and microscopy. The transactions of the New York Dermatological Society will appear in that journal. The first number will appear in October.

CLAIMS for priority in the application of extension to flaps in cases after amputation, have recently appeared in the *Lancet*, and have brought out a letter from "Edward Warren Bey, Chief Surgeon, Staff Egyptian Army," formerly Dr. Edward Warren, of Baltimore, in which he claims this invention, first employed by him in August, 1861. This method has been long in use in this city, and is familiar to all who have visited our hospitals for twenty years past.

THE contest for the chair of physiology in the University of Edinburgh has given rise to a good deal of sharp correspondence in the English journals. Dr. Pettigrew has felt obliged to reply to some of the comments which have been aimed at his method of canvassing for the position. Dr. Pettigrew replies, very justly, that this system has been authorized by custom. The glaring absurdities of a system which compels every candidate to resort to means which most modest men would strenuously avoid, have been made prominent on this occasion, and will, we hope, exert some influence in breaking up a practice which must have the effect of lowering the estimation in which the most active and prominent men are held by the mass of the profession.

BRUNTON ON THE TREATMENT OF HEADACHE.—Dr. L. Brunton, in a paper "On the Action of Purgative Medicines," recently published in the *Practitioner*, writes:—"The administration of a brisk purgative, or a small dose of Epsom salts, thrice a day, is a most effectual remedy for frontal headache when combined with constipation; but if the bowels be regular, the morbid processes on which it depends seems to be checked, and the headache removed even more effectually by nitro-hydrochloric acid or by alkalies, given before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the alkalies appear to me to be more effectual. At the same time that the headache is removed, the feeling of sleepiness and weariness, which frequently leads the patients to complain that they rise up more tired than they lay down, generally disappears."—*The London Medical Record.*

THE following ancient and wholesome oath was taken by young physicians at Montpellier. It was at Montpellier that Rabelais was professor; as also Rondelet, the father of modern zoölogy:—

"I, Isidore, &c. &c., before the statue of Hippocrates, and in presence of the Professors of this School, and of my dear fellow students, do, in the name of the Most High, swear to be faithful to the laws of honor and probity in the practice of medicine.

"I will attend the poor gratuitously, and never will I exact more pay than my work is worth. When called to visit families, my eyes shall not see what there takes place; my tongue shall keep silent on the secrets confided to me, and my profession shall never serve for the corruption of society, or in the furthering of crime.

"Respectful and grateful towards my masters, I will hand down to their children the lessons I have received from the fathers.

"If I am faithful to my oath, may men honor me; may I be covered with disgrace and scorned by my associates, if I fail."—*L'Hermite en Province*, p. 343, vol. ii.

A CALL FOR A NATIONAL SPORTSMEN'S ASSOCIATION.—The "New York State Association for the Protection of Fish and Game," believing that the time had arrived when public sentiment was in favor of forming a grand national organization for the protection of fish and game, did, in Convention assembled at Oswego, N. Y., on June 23, 1874, adopt the following:—

"*Resolved*, That this Association, in Convention assembled, do indorse the call for a National Association, issued in *The American Sportsman* of Feb. 21, 1874," having for its object the procurement of "intelligent and efficient legislation for the protection of game birds and fish," and did name the 9th day of September, 1874, and Niagara Falls, N. Y., as the proper time and place for holding such Convention, and did appoint us as delegates to said Convention; now,

Therefore, We do issue this call to all State Sportsmen's Associations and Local Organizations where no State Associations exist, and gentlemen-sportsmen where no local clubs exist, to take the matter in hand and send *Delegations to said Convention*, and make the meeting one worthy of American gentlemen-sportsmen.

A. C. MATTOON, *Oswego, N. Y.*
S. T. MURRAY, *Niagara Falls, N. Y.*
N. ROWE, *West Troy, N. Y.*
GEORGE W. FLOWER, *Watertown, N. Y.*
W. J. BABCOCK, *Rochester, N. Y.*

NOTES AND QUERIES.

TYNGSBORO, August 17, 1874.

MESSRS. EDITORS,—Will you please inform your readers if all persons admitted to the Massachusetts Charitable Eye and Ear Infirmary *must* be admitted as *charity* patients. Is the institution for the poor only?

Complaint has been made because persons *able and willing* to pay all reasonable charges for board and treatment have applied for admission. Yours, &c., ***

QUERY ABOUT THE MANAGEMENT OF THE EARS.

MESSRS. EDITORS,—I see much in your JOURNAL about the diseases, treatment and management of the eye. Is the ear an organ too insufficient to be noticed? I want to know if, in the natural loss of hearing by age, there is any treatment to ward off the too rapid approach of decay, or help for old ears suffering thus? Or is there any hygienic treatment necessary to prolong this sense or prevent its too rapid decay? Or is a rigid "let alone" the best course in these matters? SENEX.

Peterboro', N. H., August 22, 1874.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities for the week ending August* 22, 1874.

Boston, 193; Worcester, 32; Lowell, 27; Chelsea, 6; Cambridge, 25; Salem, 11; Lawrence, 13; Springfield, 12; Lynn, 16; Fitchburg, 9; Newburyport, 7; Somerville, 14; Fall River, 41; Haverhill, 6; Holyoke, 11. Total, 425.

Prevalent Diseases.—Cholera infantum, 124; consumption, 40; typhoid fever, 19.

The mortality from cholera infantum shows a marked diminution as compared with last week. The deaths from typhoid fever are steadily increasing in number.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 29, 167. Males, 86; females, 81. Accident, 3; asthma, 2; aneurism, 1; inflammation of the bowels, 1; bronchitis, 4; congestion of the brain, 1; disease of the brain, 5; cyanosis, 1; cholera morbus, 1; cancer, 2; cholera infantum, 47; consumption, 27; convulsions, 3; croup, 1; cystitis, 2; debility, 4; diarrhœa, 5; dropsy, 1; dropsy of the brain, 3; dysentery, 3; epilepsy, 1; scarlet fever, 2; typhoid fever, 5; gastritis, 1; disease of the heart, 3; insanity, 1; intemperance, 1; inflammation of the lungs, 4; marasmus, 12; measles, 1; old age, 4; paralysis, 3; pleurisy, 1; premature birth, 1; peritonitis, 1; puerperal disease, 1; scrofula, 1; syphilis, 1; tumor, 1; whooping cough, 4.

Under 5 years of age, 93; between 5 and 20 years, 6; between 20 and 40 years, 30; between 40 and 60 years, 16; over 60 years, 22. Born in the United States, 134; Ireland, 24; other places, 9.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

NOTES OF CASES OF PLEURISY AND PARACENTESIS THORACIS.

By HALL CURTIS, M.D.

Visiting Physician at the Boston City Hospital.

VI.—J. R., aged 29, farmer, entered the hospital Nov. 7, 1873. He had variola last winter, and has not felt so strong since; twelve days ago he had chills and the following day dyspnœa; ten days ago he had to leave off work and began to cough, the expectoration being slight, white and frothy. After the cough began, he had pain in side; the dyspnœa now became very great, and he was most comfortable in a sitting posture. When lying down, can rest best on right side. Temperature 102.1°. Pulse 114. Respiration 36.

Right chest flat throughout front and back; bronchial respiration and bronchophony over whole of right chest; no râles; intercostal spaces somewhat bulging; apex beat of heart in line with left nipple. Diuretics and tincture of iodine to the chest.

Nov. 10th and 11th.—Resonance and vesicular respiration at right apex, front and back. Subcrepitant râles occasionally heard over right front and upper part of back.

Nov. 15th.—Dulness diminishes daily.

Dec. 13th.—Right front dull below lower border of third rib; no change in lying down; right back dull nearly as high as spine of scapula; respiration feeble all over right back and almost imperceptible at base.

Jan. 9th.—Murmur at apex of heart following first sound; abdomen is distended and area of splenic dulness increased.

Jan. 15th.—Paracentesis performed, but owing to imperfection in aspirator only one ounce of very slightly bloody serum was withdrawn.

Jan. 30th—Right chest hyper-resonant, with loss of tone commencing one inch above nipple; amphoric respiration upper two-thirds, with mucous râles at lower third most marked on inspiration; respiration exaggerated over left front, with mucous râles at lower half of chest; want of tone over lower half of both backs and absence of respiration in lower third of each back.

Feb. 8th.—On full inspiration sibilant and sonorous râles with distant pleuritic rubbing were heard over lower half of left front. Mucous râles were heard in lower part of front of right lung.

Feb. 12th.—Thoracentesis again performed; 5½ ounces of serum tinged with blood were withdrawn.

Feb. 14th.—At his request he was discharged, relieved.

VII.—J. K., aged 18, laborer. Entered hospital Dec. 26, 1873.

Patient was never sick before. Three weeks ago had a chill, followed by cough and stitch in lower part of right chest. No expectoration till two days before entrance; sputum whitish and frothy; has considerable dyspnœa since cough began; has worked till six days ago, but has wasted rapidly. Temperature 101.4°. Pulse 104. Respiration 36.

Right chest does not expand on inspiration; intercostal spaces obliterated, and this side measures one inch more than the left; left apex dull; expiration prolonged at both apices with harsh inspiration. Right back dull above spine of scapula, and flat below; respiration bronchial and very feeble below spine of scapula. Right front dull to level of nipple when sitting; line of dulness changes on lying down. Diuretics and tincture of iodine to chest.

Jan. 11th.—Respiration heard to within an inch of right mamma; dulness back and front as before. Bronchial breathing heard through right back, more marked in lower half than before.

Jan. 16th.—Thoracentesis performed and 24 ounces of pus withdrawn.

Jan. 20th.—Much cough and sweating since operation; examination of right lung posteriorly same as on Jan. 11th.

Jan. 22d.—Discharged at own request, relieved.

VIII.—P. K., aged 42, baker. Entered hospital February 5, 1874. Family history good. General health good. Had epithelial disease of lower lip removed last July. Is addicted to drink. Eleven weeks ago was seized with a severe chill, which was followed by fever, pains in epigastrium and night sweats; some dyspnœa and palpitation on slight exertion; cough slight; was confined to bed for a day or two; laid on right side, and lost flesh and strength. Nine weeks ago noticed swelling of abdomen; four weeks ago œdema of feet appeared; has been troubled with hæmorrhoids for ten weeks past; has not had nausea, vomiting, indigestion, lumbar pain, headache or increased urination. Dyspnœa has increased the past month.

Is now much emaciated; countenance sallow and anæmic; slight cough; abdomen somewhat distended, but no fluid appreciable; slight œdema of feet.

Feb. 6th.—Some fulness and immobility of left back and slight œdema of integument. Dulness over left back from lower third of scapula, on right side from angle of scapula. Entire absence of respiration at each base; rubbing heard at posterior border of left scapula; dulness under left clavicle, and at lower part of each chest; friction heard above right nipple and mucous râles; rubbing sound also heard over middle of left front; liver dulness five inches in mammary line, five and one-half in axillary; nothing felt on deep palpation.

Feb. 13th.—Œdema much less; right back has cleared up entirely; dulness and distant respiration over lower portion of left.

March 7th.—For some nights has been unable to sleep except on right side; no œdema of legs. Hepatic dulness extends one inch below the border of ribs; left chest prominent, intercostal spaces nearly obliterated; has expansion of chest; complete dulness over whole of front; apex beat of heart felt to right of sternum; complete dulness over left back and tubular breathing along posterior border of scapula; paracentesis performed, puncture being made two inches below angle of scapula; nearly seven pints of serum were withdrawn.

March 8th.—Complete dulness below lower third of scapula; subcrepitant râles along upper half of posterior border of scapula; distant respiration to angle, and absence below. Heart sounds more to the left; some pitting over sternum.

March 20th.—In front, resonance to half an inch above left nipple; behind, to one and one-half inches below spine of scapula. Respiration heard to one inch above angle of scapula and absent below. Respiration in front same as at last record.

Paracentesis again done; four pints of serum withdrawn; the back immediately became resonant to angle of scapula, and respiration is plainly heard to this point.

March 28th.—Back still flat over lower portion, with some want of tone above. Respiration heard throughout left back, with subcrepitant râles at base.

Discharged, relieved.

IX.—W. F., 20 years of age, waiter. Entered hospital Feb. 25th, 1874. Family history good. Constitution and general health good. Was well up to a month ago. About that time he commenced to cough a little in the morning; this continued, but his appetite and strength remained good; four nights before entrance the cough grew worse, and pain came on in left side of chest. Next day felt very sick, feverish, without chill; has never had hæmoptysis.

Present condition, in bed, feeling very weak. Body well nourished; nails slightly clubbed; red line along gums; skin hot and dry; tongue thickly coated; thirst; coughs a good deal; says sputa are thick and yellow. Temperature 103.5°. Pulse 108. Respiration 18.

Feb. 26th.—Want of tone over left front. Respiration distant; on full inspiration, mucous râles are heard through left front, most marked below second rib, and occasional sibilant râles; right front respiration exaggerated; want of tone in left back, dull at base; distant crepitant râles at middle of back, with absence of respiration at base; cardiac sounds normal.

March 1st.—Examination of chest as before; except respiration through back, is more bronchial.

March 6th.—Left back dull and flat over lower half; entire absence of respiration below upper third of scapula; bronchial breathing at junction of upper and middle thirds of scapula; less expansion of this side; sounds of heart heard most perceptibly at right of sternum; left chest dull except at apex.

March 10th.—Paracentesis thoracis; four pints of serum withdrawn.

March 11th.—Dulness much diminished over left back; still perceptible over lower quarter. Respiration heard down to an inch above angle of scapula, with occasional subcrepitant râles.

March 25th.—Still want of tone over left back and flatness at base. Respiration heard to angle of scapula; absent below. Paracentesis, and one pint of serum withdrawn. Back become much more resonant and respiration was heard throughout.

March 30th.—Discharged, well.

X.—J. C., aged 26, laborer. Entered hospital March 10th. Family history obscure. Constitution and general health good. Three weeks ago was taken with pain in left side, which was increased by full inspiration, and accompanied by a dry cough and chilly sensations. Pain and cough have continued, although the pain has been less severe

and more of a dull character. For past two weeks has had dyspnœa; has lost flesh and strength; now sitting up; cough frequent; complains of pain in chest and weakness; tongue natural; appetite fair. Temperature 100°. Respiration 20. Pulse 92.

March 11th.—Left chest rounder; intercostal spaces full; very little expansion; apex beat of heart just to right of median line; dulness over upper fourth; flatness over rest of left back. Distant respiration heard above spine of scapula; none below. No respiration was heard below third rib in front. Paracentesis performed and five pints of serum withdrawn.

March 12th.—Dulness commences one inch above spine of scapula, passes downwards and becomes flat at base; still want of tone through left front, becoming flat on line with nipple. Respiration heard through left front to line of nipple, slightly tubular in character; apex of heart now beating one and a quarter inches to left of sternum. Tincture of iodine to chest. Quiniæ sulph. gr. ii. three times a day.

March 18th. Upper half of left back of almost normal resonance. Front of chest quite resonant. Respiration heard plainly to angle of scapula, and on full inspiration two inches below.

March 30th.—Still slight want of tone lower half left back, but respiration is heard throughout.

April 3d.—Discharged, well.

XI.—B. McD., 25 years old, laborer. Entered hospital Dec. 27, 1873. Family history good. Was in the hospital last August for pneumonia; slight cough continued after leaving hospital, accompanied with chest pain and some expectoration. Last October, after exposure, cough became worse, with pain in chest, increased expectoration and dyspnœa, followed by loss of flesh and strength. During the fall had been intemperate; right chest dull throughout, slightly bronchial respiration, and a few moist râles at right apex. Bronchial breathing and bronchophony over upper half right back, with moist râles throughout right back. At a limited spot near inner end of spine of scapula, amphoric respiration; also well marked bronchophony, with coarse mucous râles.

During January he gained strength, with but little change in physical signs.

Feb. 2d.—Dulness was found over lower third of right back, with distant respiration over upper two thirds, and absence of respiration in lower third; considerable dyspnœa.

Feb. 6th.—Dyspnœa has greatly increased. Dulness over middle of right back, becoming tympanitic towards base; some want of tone upper fourth left back. Respiration left back puerile, with mucous râles at base. Lower half right back amphoric respiration; mucous râles middle third.

Feb. 14th.—Respiration exaggerated through left front, with mucous râles over lower two thirds; want of tone through right front, with absence of respiration below second rib; want of tone through right back; respiration distant, on forced inspiration heard to one inch below scapula, with occasional dry and mucous râles; amphoric cough over lower fourth. Right chest very prominent. Succussion sound very marked.

Feb. 22d.—His general condition seems improved, though the liver is displaced downwards, and a murmur with first sound of heart is heard one inch to the left of sternum.

March 19th.—Right chest rounder; intercostal spaces obliterated; very slight expansion; dulness over front becoming flat at base. Entire absence of respiration except very distant at apex. Left front, tubular breathing with subcrepitant râles over lower two thirds; apex beat of heart at left nipple; right back, distant respiration above spine of scapula; subcrepitant râles to the middle; distant respiration, tubular in character and probably transmitted over rest; left back, respiration tubular, with subcrepitant râles lower third.

March 21st.—Exploring trocar introduced; one ounce of sero-purulent fluid withdrawn.

March 28th.—Paracentesis again performed; no fluid followed. Air to a considerable amount was withdrawn, with relief to patient.

June 1st.—Still in hospital. Slowly losing ground from progressive phthisis.

XII.—M. McN., 24 years old, domestic. Married. Entered March 21. Family history obscure. Says she was always well till a year ago, when she became troubled with rheumatism and swelling of leg.

About a month ago, after exposure to wet and cold, had a severe chill followed by pain in chest, becoming fixed in left side, and greatly exaggerated by full inspiration. Cough came on, with scanty expectoration. These symptoms have continued, the dyspnœa gradually increasing. Has lost much flesh and strength.

Now in bed; much emaciation; lies most comfortably on left side; breathing labored; constant pain and tenderness just below left nipple, where there is slight emphysema and discoloration; cough troublesome; profuse muco-purulent expectoration. Temperature 100.2°. Respiration 28. Pulse 100.

March 23d.—Want of tone through left front, with complete absence of respiration; amphoric cough under left clavicle; right front, respiration puerile. The cardiac sounds are distant; apex beat most distinct one inch to left of epigastrium. Left back completely dull, becoming flat over lower fourth. Above spine of scapula, respiration is distant and bronchial; absent below; right back, respiration exaggerated.

March 25th.—Mucous râles upper fourth left front on inspiration. Bronchial breathing with dry and moist râles through rest of left front. Patient apparently sinking. Paracentesis performed two inches below angle of scapula; no fluid followed, except a slight oozing of blood; the lung (?) was felt against end of trocar. The operation seemed, however, to relieve the depression of patient, as on the following day her general condition was much improved. Dr. Bowditch mentions noticing the same effect in some of his cases.

April 7th.—Dr. Edes inserted slowly a fine exploring trocar two inches to the left of my puncture, and withdrew 20 ounces of pus.

April 8th.—Resonance extends two fingers' breadth below spine of scapula, and respiration is stronger over this space than yesterday.

April 11th.—At point of emphysema already mentioned, there is a bulging when she coughs, which immediately subsides, accompanied by coarse crepitation.

April 20th.—Aspiratory needle introduced by Dr. Edes at the reddened spot in front, drawing off only half an ounce of pus. An opening was then made in the same place with a bistoury, a pint of pus was evacuated, and a drainage tube was introduced.

May 4th.—The opening still drains a few drops of watery serum.

May 15th.—Percussion resonant over left chest. Respiration almost entirely absent over left side, except at extreme lower part.

CONCERNING THE CAUSE OF GANGRENE FOLLOWING THE LIGATURE OF LARGE ARTERIES OF THE LOWER EXTREMITY.

By E. Warren Sawyer, M.D. (Harv.), of Denver, Colorado.

Read before the Territorial Medical Society of Colorado, June 25, 1874.

Writers of surgery give proper prominence to the danger of gangrene attending the cutting off of the arterial supply of an extremity, but as far as my researches have extended, no one has attempted an explanation of the *primary* cause of gangrene, or, rather, no one has drawn attention to the complication or condition upon which gangrene depends under these circumstances.

I was led to this inquiry, while house surgeon at the Boston City Hospital, by two nearly simultaneous cases of ligature of the external iliac artery.

The first, in the service of Dr. Cheever, was that of a healthy boy, of 15 years, who had been stabbed in the left groin, while in a quarrel with a companion. He had bled to a state of unconsciousness when assistance reached him. Hæmorrhage was arrested by a compress and spica bandage. He revived under stimulants and was brought to the hospital. The exterdal iliac artery was afterwards tied, just above Poupart's ligament. Extensive death of the limb followed, which necessitated, finally, the amputation of the thigh, in its lower third.

The second case, in the service of Dr. Thorndike, was that of an old man, a syphilitic, in every respect a more unfavorable subject for operation than the first, who presented himself with an aneurism of the right external iliac artery. This artery was tied near its origin, but there was no death of the limb following.

In the Boston Medical and Surgical Journal of March 19, 1874, Dr. Pineo, of Hyannis, Mass., reports a case of wound of the femoral artery, from which the patient "lost, in a short time, a large quantity of blood, producing partial syncope." The artery was tied at the point of injury. Two weeks afterward, the thigh was amputated, "at the lower part of the middle third," for gangrene of the limb.

Within a year, two cases have occurred in my practice, in which I tied the large artery of the lower extremity.

The first was that of a strong young man, who had been shot in the groin, wounding the artery. He had bled profusely, and was collapsed when I saw him. After stimulants had been used, under ether, I tied his external iliac artery. Twelve days afterward, I amputated his thigh in its lower third for death of the limb.

In the second instance, the subject was also a young man, who had received a pistol ball in the upper third of the thigh, on its anterior aspect. There was no hæmorrhage, and the man alighted from his carriage and walked up stairs to his room without assistance. Twelve hours afterward, I was called to him. On enlarging the small penetrating wound of entrance, I introduced my finger, which followed readily the track of the bullet, between the integument and fascia

lata. Nearly two inches below the wound of entrance, I came upon a slit through the fascia; into this I forced my finger, and upon withdrawing it there was a gush of blood which could come only from a wound of a large vessel. The amount of blood lost did not exceed two ounces, when I arrested it with pressure, firmly applied. The patient etherized, I cut down and found the femoral artery wounded near the apex of Scarpa's triangle, at which point I applied the ligature, above and below the wound. The bullet was not found. The recovery was complete, without gangrene.

I may say, in this connection, that in three of the instances to which I have alluded, was verified the apparently anomalous, and, as far as I am aware, inexplicable phenomenon, to which Dr. Cheever first drew my attention; viz., a rise in the temperature of the foot immediately after the ligation of the iliac or femoral arteries. As collateral circulation is established in the limb, the temperature resumes a normal degree, but gradually becomes lower in those instances in which death of the limb follows.

The object of this review of these cases is an explanation of the cause of gangrene in some instances of ligature of large arteries, and the absence of gangrene in other instances.

It may be offered that in the case of aneurism, lasting for years, the obstruction to circulation is slowly effected, and that collateral circulation is established in a gradual, compensatory manner; so that, when the supply of blood is finally cut off by the ligature, the circulation is so well established that the integrity of the limb is preserved.

This idea could not be advanced in explanation of the safety of the limb in the last instance which I detailed, for, in this, the entire blood supply was suddenly cut off, and the demand for collateral circulation as suddenly made; still the limb did not die.

An unfortunate case occurred in the practice of a medical friend, which, also, would not admit of this explanation. A man presented himself with a tumor of the groin, just below Poupart's ligament. This was mistaken for an abscess, and opened in a very heroic manner. A profuse hæmorrhage followed the incision, which was not controlled till the femoral artery had been tied above. Extensive gangrene and amputation of the limb followed. Further examination showed the tumor to be an aneurism.

It cannot be denied that the situation of the ligature is of great importance in the consideration of the cause of gangrene,—as we approach the aorta, the avenues of collateral circulation are diminished.

That the point of ligature is not alone the determining cause of gangrene, seems proved by the result in the second case of this review—of the old man with the aneurism, in whom the ligature was applied to the external iliac, near its origin, yet no death of the limb supervened. And further by Dr. Pineo's case, in which the ligature was applied to the femoral, far below the origin of the great profunda, notwithstanding which there was extensive gangrene of the limb.

A study of these and other cases has convinced me of an existing relation between the loss of blood and the death of the limb.

To recapitulate: in those cases where the hæmorrhage had been profuse, gangrene followed; while in those instances of ligature for aneurism, and for a wound of the artery, *in which the loss of blood was inconsiderable*, the integrity of the limb was maintained.

The reason of this is obvious: the circulation through one lower extremity comprises, in extent, nearly one-fourth of the entire arterial circuit; cutting off the blood supply from one-fourth of the arterial circuit, the normal column of blood not diminished, throws a greater volume of blood into the still patulous arterial circuit; produces, in fact, a congestion; which congestion, *cæteris paribus*, is the condition most favorable for the rapid dilation of the branches of the vessel which has been cut off. In other words, the heart, having an abnormally large volume of blood to propel, a volume too large for the diminished arterial circuit, forces, mechanically, the establishment of a collateral circulation.

On the other hand, when there has been a great loss of blood, the diminished volume, now abnormally small, will be propelled through the branches of the occluded, or ligated vessel, only to the extent of distributing the blood uniformly; that a collateral circulation is established proportionate, in extent, to the volume of the blood; further, the death of the limb is most extensive when the hæmorrhage has been greatest.

The truth of this dependence of the death of the extremity upon the loss of blood, can only be determined by a more extended observation than I have yet had. If correct, this thought may have some practical value; first, in emphasizing the indication which already exists, viz., to save all blood possible. Secondly, it has some prognostic value; for, in a given case, if the hæmorrhage has been profuse, we are enabled to foretell the death of the limb.

A VERY LARGE TUMOR OF THE FACE AND NECK TREATED BY CAUSTICS.

By W. R. Howes, M.D., of Hanover.

Mr. S. T., of South Scituate, farmer, aged 53 years, in May, 1873, showed me an enlarged parotid gland of the right side, and wished advice in regard to treatment. He stated that it had been growing nine months, and for the most part of the time had caused him much pain.

It was about the size of a hen's egg, quite movable, smooth, firm and elastic. He was advised to have it removed by excision without delay, but neglected to do so until the last of August, when it had become so formidable that the surgeon to whom he applied assured him that such an operation was impracticable.

Sept. 6th.—The tumor is growing with frightful rapidity, and has doubled its size within a month, measuring 10½ inches across, and projecting two-thirds of the distance to the points of the shoulder upon which it rests.

The surface is of a purplish red color and very vascular; but there is no appearance of ulceration, though, for two months, there has been a profuse discharge of transparent serous fluid, which leaks out through numerous minute openings. The skin around the base appears perfectly healthy, and the infiltration probably does not extend beyond the limits of the growth.

The patient is not cachetic, though much weakened and emaciated by suffering. A rigid adherence to regimen for two weeks has slight-

ly improved his condition, and he is now very importunate that some means should be tried to alleviate his distress.

With the intention of arresting the rapid cell-growth, an ounce of dilute acetic acid (40 per cent.) is injected into the upper and posterior parts, where it is well retained.

Sept. 8th.—The acid has not increased the pain, but there is considerable irritation at that spot, as shown by increased redness and swelling on the surface.

Sept. 10th.—The irritation has subsided and the skin is brown, lax and wrinkled. Injection repeated.

Oct. 8th.—The acid was injected at intervals of three or four days, for a fortnight, when an opening appeared in the skin near the apex, plugged with a brown slough. This was loosened by a linseed poultice, and some shreds of lint saturated with a very strong solution of chloride of zinc were inserted by the side of it, and in a couple of days it came away, leaving a cavity about as large as an English walnut, which was packed with lint saturated as before, and this dressing has been repeated daily, removing the debris as thoroughly as possible without causing pain, until the cavity measures 3½ inches and the opening 1½ inches in diameter. The substance around this cavity is firm, the surface wall standing out rigid, like a shell, maintaining the form of the tumor, which is now considerably diminished in size. An attendant says, "It is just the place for a bluebird's nest," and the conceit is not inapt.

There has been no hæmorrhage except a slight oozing when scraping out the debris closely. The opening in the skin does not enlarge by ulceration, but the margin crumbles away by a process of disintegration; and in this manner another opening is beginning to form about two inches from the first, towards the cheek, where the shell has become thin.

The substance removed is of a greyish color, and consists, for the most part, of fibrous shreds and patches, resembling the husks of the cocoa-nut, or fragments of rotten Manilla cordage.

The patient is cheerful, eats and sleeps well, takes plenty of outdoor exercise, and is almost free from pain, except for a few hours after the dressing. His general health is very much improved. Same applications continued.

Oct. 25th.—The isthmus of skin between the openings has separated, and the shell retracts from the centre and turns outward, presenting a concavity as large as a coffee-saucer and almost as deep. As the lint cannot be confined conveniently, a paste is substituted, made of the chloride of zinc and wheaten flour. This is spread upon cloth and covered with cotton batting.

Nov. 4th.—At the anterior margin, the shell is removed to a level with the healthy skin, and a perfect line of separation is deepening between this and the slough. To-day, the patient has violent erysipelatous inflammation of the eyelids, nose and lips, caused by exposure to cold and dampness, necessitating a suspension of the caustic.

[This inflammation was relieved in a few days, but the demoralizing effect was signally unfortunate. Hitherto quite patient and yielding, he now became peevish and intractable. It was the last straw to the camel's back, and from this time he could never be prevailed upon to take exercise and nourishment as the urgency required.]

Nov. 18th.—A slough has separated from the anterior half of the ulcer as far back as the ramus of the jaw, exposing a clean, healthy, granulating surface, which is dressed with carbolic acid and glycerine.

Dec. 4th.—The remainder of the disease has sloughed out, leaving an ulcer which measures five and a half inches in diameter, and appears healthy throughout. The anterior portion has been healing satisfactorily for several weeks.

Dec. 20th.—The ulcer now measures four and a half inches at its longest diameter, and is healing very slowly, though there is nothing unfavorable in its appearance.

The patient has taken no exercise of consequence for more than six weeks, and takes nourishment unadvisedly and irregularly. Though getting more anæmic, his strength and appetite are quite good, and he is hopeful. When urged to observe a regimen which he is assured must be an essential condition of recovery, he replies that his flesh heals so readily that the sore will get well under any circumstances.

From this time there was little healing, and gradual failing of the general health until Feb. 20th, when he died without suffering. For a week previous, the surface of the ulcer was covered with an ash-colored exudation; there being scarce any discharge, and so little pain that the patient declared he should not know it was there from any suffering it caused.

Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

(Concluded from page 231.)

The Circulatory System.

Observations and Notes on the Arteries of the Limbs.—Mr. Thomas W. Nunn, of London, writes on this subject in the *Journal de l'Anatomie et de la Physiologie*, Jan. et Fev., 1874. Though he does not give much that is new to the practical anatomist, and though some of his ideas are purely fanciful, his general plan may be of use to teachers and students. The main artery of each segment of a limb divides into two chief trunks, of which one runs onward, giving off few branches, and but slightly decreasing in size, to carry the blood from that segment to the next, while the other divides into a number of small branches going to nourish the segment in which it arises. Nunn calls these two chief trunks the transegmentary and segmentary, respectively. As typical examples of the first kind, we have the external iliac, the femoral and the posterior tibial; of the second, the internal iliac, the profunda and the fibular. In the upper extremity, at least above the elbow, the plan is not quite so simple. The segmentary arteries are smaller and given off separately, instead of from a common trunk; but Nunn shows that, in anomalous cases, there is a tendency to return to the typical plan; thus Quain has shown that, in 115 out of 478 cases, the superior and inferior profunda arteries, sometimes with other branches, are given off from a common trunk. So far Mr. Nunn's generalizations are very good; but he goes on to form two

more classes, one of anastomotic and one of composite arteries, that are so wanting in definite characteristics and so liable to variation that they tend solely to confuse.

The Cerebral Circulation.

H. Duret, whose researches on the circulation of the medulla oblongata we have noticed in a previous report, has published a very valuable and exhaustive paper on the circulation of the brain, in the first two numbers for 1874 of the *Archives de Physiologie*. The remarks on the circle of Willis are interesting and of practical value. Although there is considerable variation in the size and points of origin of the branches of the internal carotid, the ophthalmic arises always from the main trunk; an arrangement calculated to preserve the circulation of the eye and the anastomosis with the external carotid, in spite of the closure of both the anterior and middle cerebral. The posterior communicating, on the other hand, frequently arises from the middle cerebral instead of the carotid; a variation of some importance. Indeed, it seems as if the abnormal arrangement were the most desirable, for if a clot too large to enter either of its subdivisions be arrested at the end of the internal carotid, the circulation in the middle cerebral cannot be reëstablished except by very devious and insufficient channels; but if the posterior communicating open into it, it will be supplied from the posterior cerebral. In either case, the anterior cerebral will be supplied from the other side. The author dwells on the scarcity of communications of the branches of the carotids with each other and with those of the opposite side, and states that the branches of the vertebrals anastomose freely. The arteries of the corpora striata are divided into an external and an internal group, and come from the middle cerebral, excepting a few inconstant ones from the anterior. Their course, at first, is upward and outward, after which they turn forward, forming externally convex curves. They have no anastomoses with other arteries, nor with each other, and end in small "brushes" of branches. The arteries of the optic thalami are similarly arranged, and come from the posterior cerebral, the posterior communicating and the choroid arteries. The veins of these bodies, though larger, are less numerous than the arteries. Duret mentions, in this connection, that he never has been able to inject the veins of Galen from any tributary of the longitudinal sinus.

The terminal branches of the arteries of the convolutions may be divided into two sets, those of the pia mater and those entering the substance of the brain. Small arteries, ramifying in the pia mater, are given off directly from the larger as well as from the smaller branches, and it is from the finest that the small nutrient arteries descend directly into the cerebral substance. Duret denies the existence of the network of arterial anastomoses usually described in the pia mater, and explains that one cause of error is that the vessels often lie in two layers. He admits, however, that there are some communications between the arteries of the same side and between the two posterior cerebrals. In view of this paucity of anastomoses and of the present popularity of the theory of the localization of the cerebral functions, it is worth while to give a general account of the author's researches into the source from which the convolutions are supplied. Though unfortunately retaining the antiquated nomenclature of Leuret and Gratiolet, the author has used Ecker's diagrams, and in this report we shall adopt the system of the latter.

The *anterior cerebral artery* gives off several small branches, which supply the under surface of the inner half of the frontal lobe, that is, as far as the H-shaped *sulcus orbitalis;* also the upper surface of the first and second frontal convolutions and the superior part of the anterior cerebral convolutions, sometimes, indeed, passing the top of the fissure of Rolando. The branches of this artery extend, on the inner surface, as far as the *parieto-occipital* fissure, while the arteries of the *corpus callosum* curve round its posterior border, and then run forward, sometimes reaching the posterior commissure.

The *middle cerebral artery* runs in the fissure of Sylvius, and is distributed almost entirely to the convexity. The first branch given off supplies the celebrated third frontal convolution. One branch runs up the fissure of Rolando, and the others supply the outside of the brain as far back as the *parieto-occipital* fissure, and in the temporal lobe back to just beyond and parallel to the *superior temporal* fissure. In short, this artery supplies the parietal and a part of the frontal and temporal lobes.

The *posterior cerebral* artery supplies the occipital lobe and the remainder of the temporal lobe. On the inner surface, it gives to all the convolutions posterior to and below the *parieto-occipital* fissure.

In considering the veins of the surface, Duret attaches great importance to the "grande veine anastomotique" described by Trollard, which, leaving the superior petrosal sinus about its middle, runs in the thickness of the dura mater till it reaches the fissure of Sylvius, where it becomes (or joins) the Sylvian vein, which is of considerable size, and empties into the superior longitudinal sinus. With this exception, the author thinks that too much importance has been assigned to the communications between the veins of the base and of the convexity. He is convinced that the alleged system of anastomoses between the arteries and veins of the pia mater has no existence.

There is little to be said of the nutrient arteries of the convolutions. As already intimated, they are very minute, and may be divided into the cortical and medullary, the former of which end in the grey matter, while the latter penetrate to and ramify in the white.

Dr. Brunton and Mr. Henry Power, in the *Centralblatt* for July 4th, bring forward reasons founded on some experiments of theirs for rejecting the prevalent theory that digitalis increases the flow of urine by raising the blood pressure in the arterial system. They injected digitalin in considerable doses into the veins of a dog, and drew off its urine by means of a catheter. The injection was followed by great diminution, or even total suppression of the flow of urine, while the blood-pressure rose simultaneously. The authors are inclined to explain the diuretic action of digitalis by assuming that it stimulates the vaso-motor nervous system generally, while it exercises a special action on the vaso-motor nerves of the kidney. From this results a moderate contraction of the vessels of the whole body, with consequent increase of the blood-pressure; while in the kidney the contraction is excessive, and so puts an end to the flow of urine. As soon, however, as the stimulus to the vaso-motor nervous system is removed, the vessels of the kidney relax quickly, and more completely than the system vessels, so that the tension of the blood in the glomeruli of the kidney is still above the normal, although that in the general circulation is below it. This theory is further supported by the fact that albumen appears in the urine after the reëstablishment of the secretion.

Bibliographical Notices.

Experimental Researches on the Physiological and Therapeutic Action of the Phosphate of Lime. By L. DUSART, Ex-interne des Hôpitaux. Second Edition. Paris: 113 Faubourg St. Honoré.

THE original book of Dr. Dusart is a medical work of some value, upon phosphate of lime as a reconstructive tonic and upon the lactic acid solution as an eligible preparation thereof.

The present so-called second edition is an English translation of the same, ingeniously arranged as an advertisement, and published by a wholesale drug house in Paris, having an introduction, evidently intended to be read as from Dr. Dusart, but *not bearing his name*, and containing the only too familiar talk about the inferior preparations of other manufacturers, a little virtuous indignation at the frauds by them practised upon a suffering public, &c. &c. The only reliable preparation is, of course, clearly indicated on the covers. If our readers wish to read Dr. Dusart's book, we hope they will, if possible, read the original, and if they are thereby or otherwise convinced of the value of syrup of lactophosphate of lime, let them not trouble themselves about the French preparation, with anybody's name on the label, but get it from any of the respectable American pharmacists who can and do make just as good a medicine.

BOOKS AND PAMPHLETS RECEIVED.

The Complete Handbook of Obstetric Surgery; or Short Rules of Practice in every Emergency, from the Simplest to the most Formidable Operations connected with the Science of Obstetricy. With numerous Illustrations. By Charles Clay, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, &c. &c. From the third London Edition. Philadelphia: Lindsay & Blakiston. 1874. Pp. 328. (For sale by James Campbell.)

Surgical Emergencies: together with the Emergencies attendant on Parturition and the Treatment of Poisoning. A Manual for the use of General Practitioners. By William Paul Swain, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. With eighty-two Illustrations. Philadelphia: Lindsay & Blakiston. 1874. Pp. 189. (For sale by James Campbell.)

Transactions of the twenty-first Annual Meeting of the Medical Society of North Carolina, held at Charlotte, N. C., May, 1874. Raleigh, N. C. 1874. Pp. 132.

The Relation of Medical Societies to Progress in Science. Inaugural Address of the President of the Medical Society of the County of Kings, New York, Alex. J. C. Skene, M.D., June 16, 1874.

Protection of Animals. By George T. Angell, President of the Massachusetts Society for the Prevention of Cruelty to Animals. Read at the Annual Meeting of the American Social Science Association, 1874.

Clinical Report of the Lying-in Service at Bellevue Hospital, for the Year 1873. By Wm. T. Lusk, M.D. Reprinted from the New York Medical Journal, August, 1874. New York: D. Appleton & Co., 549 and 551 Broadway. 1874.

Smithsonian Miscellaneous Collections. 279. The Toner Lectures, instituted to encourage the Discovery of New Truths for the Advancement of Medicine. Lecture III. On Strain and Over-action of the Heart. By J. M. Da Costa, M.D. Delivered May 14, 1874. Washington: Smithsonian Institution. August, 1874.

Address of Joseph M. Toner, M.D., President of the American Medical Association. Extracted from the Transactions of the American Medical Association. Philadelphia. 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, September 10, 1874.

The New York daily papers recently contained detailed reports of a "Children's Party" at Long Branch, wherein is told with all the enthusiastic rhetoric of the modern school of Bohemianism the story of fine dresses, dazzling jewels, elaborate *coiffures*, late and indigestible suppers, and all the incidents of a fashionable juvenile dissipation at night. It is said that the gentlemen of seven years and the misses of five successfully imitated the social ways and mannerisms of their elders, and that in all respects the dancing, the flirting and the eating were the miniature presentment of adult excesses in the same directions. To the spectators, such an exhibition was doubtless very exhilarating, and the over-dressed mothers believed their over-dressed children were in excellent training.

To us, such a spectacle seems a mockery and a crime; not on its moral side alone, though that is suggestive enough, but because of the physical risks indirectly involved. Recreation is healthful, but when it takes on such an intemperate guise as that described at Long Branch, a type of dissipation much too frequent at resorts of fashion, it is time to protest in the name of common humanity. These children, thus subjected to the exciting and stimulating conditions which full-grown manhood hardly endures without paying grievous penalty, are the buds of promise—not of healthy, well-developed maturity, but of a forced, weakly, unfruitful growth. If such unfortunate germs live (for the chances of living are certainly against them), they will surely appear in the note-books of physicians, in good time, representatives of a numerous class in both sexes—the men, enfeebled and impotent in mind and body, the women anæmic, sterile, the ready victims of gynæcological quackery. Surely there is opportunity enough for reform in education as touching the physical penalties involved; but the reform should begin at the beginning. Whatever errors and prejudices the critics of Dr. Clarke's "terrible little book" may have betrayed, they have been right in this respect, that the seeds of evil are frequently sowed long before physiological periodicity is tampered with. May we not have a Society for the Prevention of Cruelty to Children?

It is generally a discouraging as well as an unprofitable task to peer into the mysteries of the mixtures sometimes called "proprietary"

medicines, more vulgarly denominated "quack remedies." But there is also an entertaining side to an inquiry into the profundities of these medicinal compounds which are made to sell. That peculiar trait in human nature which John Foster christened gullibility, finds manifold methods of contentment. Chemists have made known the proportional amount of alcohol which constitutes the inspiration of the various kinds of "bitters"; and "soothing syrups" and "cough balsams" in vain pretend that their soporific charm is due to something besides opium. Little cares the great public for the warnings of science; for the public loves to be cheated.

Just now a passing fashion is the swallowing of gallons of vile stuff called mineral water. Quite unlike the alcoholic and the opiate preparations by which men are made drunkards and infants drugged out of the world, these waters do good by their harmlessness. We have amused ourselves recently by a cursory glance at the merits of one of these health-bestowing blessings in quart bottles, and make no apology for drawing attention to the wonderfully little required to accomplish miracles of healing. The sample under inspection is called "Nature's great Remedy." By the aid of the State Assayer of Massachusetts, we are enabled to give our readers and the public its exact composition. The figures are as follows:—

"ONE UNITED STATES GALLON CONTAINS

Sulphate of potash	0·101 grains.
Chloride of sodium	0·447 "
Bi-carbonate of soda	0·218 "
Bi-carbonate of lime	4·168 "
Bi-carbonate of magnesia	0·867 "
Sulphate of lime	0·811 "
Silica and alumina	0·043 "
Protoxide of iron	2·161 "
Organic matter ("crenic acid")	2·888 "

It is a chalybeate mineral water, containing an uncommonly large proportion of iron in solution, and it will act as a strong tonic."

Now, as may be seen, every gallon contains of this valuable material the enormous amount of 11·674 grains. Four hundred and eighty grains make one ounce, and every gallon of Nature's great Remedy contains nearly $\frac{1}{40}$ of an ounce of mineral matter, and organic matter known as crenic acid, which latter is found in all soil rich enough for a plant to grow in. That is to say, this Unitoga Spring gives pretty good and pure water, quite as pure as can be found in most wells in the neighborhood of Boston.

To make "Unitoga" at home, for those whose well-water is not sufficiently impure to be medicinal, we have translated the chemical names and given the weights, approximately in fractions of an ounce, which look less formidable than decimals:—

Sulphate of potash . .	$\frac{1}{4752}$ of an ounce.
Common salt	$\frac{1}{1151}$ " " "
Bi-carbonate of soda . .	$\frac{1}{2201}$ " " "
Chalk	$\frac{1}{115}$ " " "
Bi carbonate of magnesia .	$\frac{1}{553}$ " " "
Plaster of Paris . . .	$\frac{1}{591}$ " " "
Flint and clay . . .	$\frac{1}{11162}$ " " "
Protoxide of iron . . .	$\frac{1}{220}$ " " "
Crenic acid (soil) . . .	$\frac{1}{166}$ " " "

Mix the above carefully, and add sufficient clean water to make one gallon. If protoxide of iron be not readily obtained without troubling the market, it may be easily furnished by stirring the mixture with an iron spoon, or allowing a board nail to remain in the mixture over night.

Another water from the same company contains less of the minerals, according to our State Assayer, but "it is highly charged with sulphuretted hydrogen." This can be easily obtained by using for a vehicle the water from some well near to which runs a drain.

In the last two numbers of the *Obstetrical Journal of Great Britain and Ireland*, the American supplement contains a continued article by Dr. William Goodell, the President of the Philadelphia Obstetrical Society. The paper relates to the management of obstetrical cases at the Preston Retreat, of which Dr. Goodell is the Superintendent; it is marked by such a degree of originality as to make it almost a new departure in obstetrical science. We have not space to comment at length on the various topics discussed, but we can fully commend them as suggestive and sensible, if rather startling to conservative minds. One fact is modestly put forth by the author as the result of his measures at the Retreat, namely, that out of 756 cases of midwifery there treated, there have been only six deaths, or a mortality of ·8 per cent. The key-note of Dr. Goodell's practice is found in the following quotation from his paper:—"Labor is, in general, a strictly physiological process, and there is no reason why it should be made to wear the livery of disease." He discards all the paraphernalia usually found in the lying-in room—the bed-pan, the syringe, the antiseptic and detergent lotion, the obstetric binder, the traditional "milk-fever" purge, and allows the patient to follow pretty nearly her natural inclinations in all respects. Surely, the Superintendent of the Preston Retreat is not addicted to "meddlesome midwifery," and, considering the fact that hospitals do not have selected favorable cases as a general thing, but the contrary from necessity, a very excellent showing is made as the result of such open defiance of traditional methods. The paper deserves much attention.

In France, as in England and elsewhere, the respective authorities and the public in general are just now taken up with the question as to the most suitable manner of disposing of their dead, as, in large cities like London and Paris, these occupy so much ground as to become an embarrassment to the living. To obviate the inconvenience of overcrowding, the different governments of France have established cemeteries outside of the walls of the city, or rather, as far as possible from the centres; but the space allotted to the dead and the living, however far apart they may have been originally, soon unite, and, in course of time, they are obliged to seek other ground for the burial of the dead. This removal of the cemeteries at a distance from town is attended with great inconvenience for the proper performance of the funeral ceremonies practised in Christian countries. But, besides these considerations, there are others of equal, if not of greater importance, which ought to be taken into account; I refer to the public health. With the exception of a few of the old school, or *routiniers*, it is admitted by all hygienists that the situation of churchyards or cemeteries in the midst, or even in the vicinity of, living population must be prejudicial to their health. It is this grave question that has led the public mind to the consideration as to the expediency of resorting to the ancient mode of disposing of the dead by incineration or cremation. But, although this question is being agitated in France, or rather, in Paris, I do not think that the French will readily take to cremation, as, notwithstanding their revolutionary spirit, they are great *routiniers*; besides which, if they have no respect for anything in this world, they have great veneration for the dead; and nothing will convince them that cremation will not tend to abolish this sentiment, and the religious rites proceeding from it.—*Paris Correspondent of the British Medical Journal.*

An extract from the report of the Royal Commission on Scientific Instruction and the Advancement of Science, of which the Duke of Devonshire was chairman, for investigating the condition of the various National Scientific Museums, states of the Museum of the Royal College of Surgeons of England:—

"This collection of human, comparative and morbid anatomy was founded in the last century by the celebrated John Hunter. After his decease, the Hunterian collection was purchased by the Government and placed in the keeping of the Royal College of Surgeons, subject to periodical inspection by a board of trustees, which is kept up by coöptation of new members as vacancies occur. Since the collection came into the possession of the College, it has been vastly extended and enriched, and is now probably the most complete and best arranged museum of its kind in existence. It is freely accessible to students; and lectures to members of the College, to which any person interested readily obtains admission, are delivered, on comparative anatomy, by the Conservator, Professor Flower, and, on surgical subjects, by Fellows of the College appointed to that duty, from time to time, by the Council.

"For the purchase of the original or Hunterian collection, and in grants for buildings, the nation has contributed £57,500 towards the expense of this museum; but the entire expense of its maintenance and continued extension, amounting to about £2,500 a year, is discharged by the College out of the fees payable by candidates who pass the examination for the College diploma; and the aggregate sum which has been thus expended far exceeds that supplied by the State.

"The comparative anatomy division of this museum, besides a great osteological collection, contains an extensive series of preparations of the internal organs and other dissected parts of animals, preserved in spirits. Preparations of this description are requisite for a well-grounded study of zoology; and, as no such series exists in the British Museum, this part of the College of Surgeons' Museum may be regarded as supplemental to it. But, although it might seem, on this account, desirable to incorporate the comparative anatomy division of the College of Surgeons' Museum, in whole or in

part, with the zoölogical collections of the British Museum, there appear to be serious objections to such a measure. For, in the first place, by far the greater part of the collection in question being the property of the College of Surgeons, a very large outlay of public money would be required for the purchase of it, were the College willing to part with it, which we have no reason to think probable. Again, so large an increase of spirit preparations in the British Museum would increase the risk of destruction in case of fire; and, lastly, the transference of the comparative anatomy collection to South Kensington would render it much less conveniently accessible than it is at present to students attending medical schools, who now make use of it.

"Should the fund at the disposal of the College, owing to changes in medical legislation, or from any other cause, prove inadequate for the efficient maintenance and continued extension of the museum, we are of opinion that it should receive support from the State as an institution intimately connected with the progress of biological science in this country. At the same time, there seems to be no sufficient reason why it should, in such a case, pass from the custody and management of the College, under which it has so long and so greatly prospered."

Amongst the donors to this interesting collection are Professors Gervais, of Paris, Julius Haast, Quatrefages, Sir William Fergusson, Captain Harris, Drs. Fayrer, Watts, Dowse, Goodhart, &c., and Messrs. W. M. Baker, T. C. Jackson, J. Birkett, J. Gay, Rivington, McCarthy, Crowther, Garrod, Duncan, Mrs. Wormald, &c., and, as usual, the Zoölogical Society, the Smithsonian Institution, &c.—*British Medical Journal.*

Influence of Chloroform in Labor upon the Fœtus.—Dr. Zweifel, of the Obstetric Clinics in Strasbourg, has recently made some investigations that would seem to imply that the anæsthetic administered to women in labor has more effect upon the fœtus in utero than is perhaps generally admitted. Dubois has made the statement that anæsthesia of the mother causes increased rapidity of the fœtal heart-beats. The writer had often observed an appearance of icterus upon newly born children after the use of chloroform, but could not with certainty attribute it to the latter. His attention was at first seriously arrested by perceiving in the breath of an infant, born a few hours before, a distinct odor of chloroform. The child had been extracted while the mother was under the influence of the anæsthetic, but since the delivery had lain in a room by itself, where no chloroform had been used. Shortly after this, in order to determine positively whether the anæsthetic was conveyed to the fœtus through the maternal circulation, he instituted the following test:—A fresh placenta that had just been expelled by a woman to whom chloroform had been administered for only about fifteen minutes, and more than an hour previously, was placed in a close-fitting vessel, having first been cleansed of all adhering clots. The following day, when the vessel was opened, a decided odor of chloroform was perceived, and further examination proved conclusively the presence of the drug. By still another test (the examination of the child's urine), the writer was able to establish the fact of the influence of the anæsthetic upon the fœtus. In conclusion, the writer observes that, since the use of narcotics in general are contra-indicated in infants, it is an important question for obstetricians to decide, to just what degree anæsthesia may be carried in women in labor with impunity to the fœtus.—*Berliner Klinische Wochenscrift; New York Medical Record.*

The Treatment of Hydrocele by Alcoholic Injections.—It is only about a year ago that the treatment of hydrocele by alcoholic injections was all the rage in the Paris hospitals, but from the disappointment met with as to its curative powers, the method is already consigned as a thing of the past. M. Tillaux, of the Lariboisière Hospital, and others have given it a fair trial, but they were obliged to have recourse to the iodine cure,

as relapses had occurred after the alcoholic injections. M. Tillaux, however, has hopes of its utility in children. He injects about fifteen drops of a strong alcohol into the tunica vaginalis, leaving, as with adults, the fluid of the hydrocele in the sac; but further experience is necessary before an opinion can be formed as to its efficacy in these cases. A Dr. Surmay, a provincial practitioner, has somewhat modified Dr. Monod's plan of leaving the fluid in the tunica vaginalis, and before injecting the alcohol he draws off the fluid, so that the alcohol which he employs, pure but weak, is in direct contact with the serous cavity, and thus produces a sufficient degree of inflammation to effect obliteration. He has found one injection insufficient, and has recourse to a second, which in general effects a cure. Out of twenty cases treated in this way he has had eighteen cures, but time alone will decide whether these will be permanent.—*Paris Correspondence of the Medical Times and Gazette.*

Pulsation is frequently seen in the epigastric region. Sometimes this is associated with absence of the apex-beat from its usual position, and is to be regarded as one form of its displacement—a displacement which may be brought about in various ways, the commonest of these being dilatation of the right ventricle, by which the left ventricle is pushed backwards, the right one communicating its impulse to the lower part of the sternum and to the liver, which is then seen to pulsate in the scrobiculus cordis. It may be doubted if such pulsations are ever visible in a perfectly normal condition of the heart and neighboring organs. Assuredly, they are often seen where no actual cardiac disease exists; simple dilatation of the right ventricle is invariably more or less present when pulmonary congestion exists, even from such simple and temporary causes as strenuous exertion or bronchial catarrh; and whenever dilatation of the right side exists to any considerable extent, epigastric pulsation may be seen. It is rendered more perceptible by any cause which may effectively conduce to the transmission of such impulse to the abdominal walls. Thus it is sometimes favored by the existence of effusion in the pericardium; but especially by the occurrence of enlargement of the liver, which is so frequent a concomitant of dilatation of the right ventricle. Indeed, in such circumstances, the systolic impulse of the venous regurgitation itself is occasionally so great as to induce actual pulsation of the whole liver, a pulsation which is then visible, not merely in the scrobiculus cordis, but throughout the whole right hypochondriac region; an extent of hepatic pulsation which is not, however, always distinctive of great venous regurgitation, as it is occasionally seen as the result of the impulse communicated by a large aneurism lying immediately above the liver.—"On the Diagnosis of Disease of the Heart," by Geo. W. Balfour, M.D.—*Edinburgh Medical Journal; Medical Times and Gazette.*

In further examining the condition of our patient, we first feel both radial pulses simultaneously, noting whether the arteries are firmer or more tortuous than usual (atheroma). If there be a marked difference between the two radial arteries, we feel both brachials simultaneously; if these be equal, the difference between the two radials is due to irregular distribution. If the brachials differ, in all probability there is some abnormal physical cause to account for it—possibly an aneurism. Should the radial pulses be equal and regular, but small and feeble, we elevate the wrist to a level with the head, if the patient be standing or sitting; if lying, we elevate the arm to its full length perpendicularly to the body. Should the pulse then become extinguished, or nearly so, the patient is anæmic, and possibly anæmia is his sole disease, but we must never, under any circumstances, rely upon one symptom, however apparently trustworthy, but merely note it as an aid and a guide in our further investigation. Should the pulse, after elevation of the arm, remain still small and feeble, but distinct, the cardiac disease, if present, is mitral. Irregularity of the pulse confirms this suspicion; extreme irregularity points to the probability of the affection of the mitral valve being constriction rather than dilatation. Should the small, feeble, and possibly ir-

regular pulse remain, not only distinct after the elevation of the arm, but become more so, the systolic impulse being followed by such a sudden and complete collapse as to render the impulse apparently more marked, then we have to do with a double lesion, a mitral and also an aortic regurgitation. This form of pulse is, however, not always well marked; in many cases it is not easy of detection, and is therefore not to be relied upon unless the collapse is distinct. In simple aortic regurgitation, however, the peculiar sensation conveyed to the finger, and well known by the terms hammer or Corrigan's pulse, is usually well marked, and frequently so greatly increased by elevation of the arm as to become almost painful, and wholly unmistakable. —"On the Diagnosis of Disease of the Heart," by GEO. W. BALFOUR, *Edinburgh Medical Journal*, June, 1874—*Medical Times and Gazette.*

Correspondence.

SELF-REGISTERING THERMOMETERS AGAIN.

PROVIDENCE, Sept. 5, 1874.

MESSRS. EDITORS,—Having had the same difficulties as Dr. Barnes describes in his note upon repairing self-registering thermometers, and not ever succeeding with his plan of restoring the index, permit me to suggest another method.

Cool the bulb till a small space is visible above the mercury, then quickly invert the instrument, and, holding it perpendicularly between the thumb and fingers, strike a sharp blow—ramrod fashion—upon a thick and not too solid rubber eraser laid flat upon the arm of your chair. A minute portion of the mercury will so be thrown past the empty space into the tube, and may be shaken further up to serve as the index. If it is not of the right size, shake it back into the bulb and try again.

The instrument I have used has been a plain straight one, graduated on the tube; but I think this plan can be tried on any instrument, if it be carefully held. Yours respectfully, CHARLES H. LEONARD, M.D.

LETTER FROM MUNICH.

MUNICH, August 15, 1874.

THE museum here is a model; not so large, indeed, as some I have written of, but in admirable order and well nigh perfect in its way. The pathological collection is separate and comparative anatomy is almost wholly excluded, so that it is all but exclusively devoted to normal human anatomy, to teach which is its *raison d'être*. Among the most noteworthy features are the specimens of embryology, near which are beautiful wax models of the early stages of certain mammalia, made to illustrate Prof. Bischoff's original researches. Prof. Rüdinger has just completed some series showing the development of some of the facial bones. He has made, also, many excellent sections of the temporal bone, with the foramina and grooves painted in different colors, for greater convenience of demonstration.

Frozen sections abound, not only those through the joints, but others through the entire body. Though the latter are not all placed in the museum itself, I had the opportunity of seeing one which is figured in Rüdinger's topographical anatomy, which is now in course of publication. It was a vertical antero-posterior section through the right side of the body, traversing the lung, liver, kidney, intestines, as well as the scapula and the hip-joint. It was perfectly preserved in spirits. Some may think that in the Munich school the use of frozen sections is carried to excess; and it certainly is true that no student can understand them until he is tolerably familiar with the shape of the various structures as taught in descriptive anatomy, but it is held here that it is not necessary to be very far advanced in the latter before he can grapple with topography, but that, on the contrary, the study of one of these branches helps that of the other.

Here are also Rüdinger's magnificent corrosion preparations and many of his dissections photographed in his works on the ear and on the nerves. The finest of these is that showing the distribution of the sympathetic and pneumogastric. The nerves do not show quite so clearly in the specimen as in the pictures, but nevertheless there is nothing figured in the latter that does not exist in the former. If the museum has a weak point, it is in preparations showing the fasciæ, which are almost wholly ignored; but it is only in France that the same criticism may not be made of any museum. I have mentioned only the most striking features, but the museum is full of ingenious preparations for the illustration of special points, which go far to enhance its value. T. D., JR.

Letter from Vienna.

[From our Regular Correspondent.]

Vienna, Austria, August 2, 1874.

Messrs. Editors,—The cholera conference has closed its labors, for the present, with the twentieth meeting.

Yesterday, the members of the conference gave a dinner party in honor of their President, Baron von Gagern, in Hitzing. They exchanged their photographs with each other, and parted in the most friendly and cordial manner. They signed, also yesterday, the *Protokoll*, and the President declared the session of 1874 closed. Two Spanish delegates appeared a few days ago, but no one from the United States. On account of the non-appearance of any representative from our country, the discussion regarding the yellow fever question has been postponed to some future day.

The conference have agreed to suggest to the governments which they represent to send a delegate to a permanent congress, the headquarters of which are to be in this city. This scientific body shall send competent persons to all the places where zymotic diseases occur, for the purpose of studying the same, their causes, their extent, and make such suggestions as will tend to prevent their propagation; to examine all the known disinfectants and publish the mode of treatment which, in their opinion, might be best adapted to cure patients affected with contagious diseases. It is to be hoped that the coöperation of all the civilized nations on the face of the globe will be represented at this congress, and thus be always informed of the occurrence of any contagious disease in any part of the world.

The President made a parting speech, of which the following is the substance:—"Arrived at the end of our labors, the conference deems it necessary, in an act signed by all the members present, to enumerate or to recapitulate all the resolutions that were adopted and passed, in order to answer all the questions that were contained in their programme. As one of the representatives of the committee for the preparation of the preliminary labors of the commission, I deem it my duty to state that the conference has done everything in their power to come to an agreement, its highest aim being the interest of the public health and that of international commerce. Without doubt, an agreement upon all points would have been very desirable, but the force of circumstances in the discussion of such vital and important points, as could be expected, made this somewhat difficult; but still, for the present, we must be contented with the results, as they are the first step to a general agreement in the future.

"As regards the scientific part of your programme, the conference came to the same conclusion as that arrived at, at Constantinople, a few years since, without being able to clear up the dark points in the history of cholera, since that time no important discoveries having been made. Two questions arose as to the prophylaxis and the protection against infected and cholera-suspected provinces, at the different seaports where disease might be propagated to a healthy community by a steamer or vessel coming from such an infected port.

"The two systems, of which each has its advantages and disadvantages, were discussed and maintained by each party with equal tenacity, the one

claiming the utility and necessity of the strictest quarantine, the other being in favor of a thorough inspection of each incoming vessel, the establishment of hospitals for the reception of persons affected with zymotic diseases, the separation of the healthy from the sick, but no detention of the former, *no* quarantine; and, finally, both these methods were proposed to be tried. Simple inspection and revision, and again, on the other hand, some favored the existing quarantine regulations against cholera. The conference, however, voted almost unanimously against quarantine regulations on land; that is, people or merchandize being transported by land should not be interrupted before arriving at their destination on account of coming from a place where zymotic diseases might occur at the time of the departure of persons or things. In regard to river transportation, the same measures were adopted as in case of transportation on the high seas. Strict inspection, revision, separation of the healthy from the sick, the proper use of disinfectants, &c. That part of the programme regarding the establishment of an international commission against epidemic diseases has been adopted, the financial question to be left in the hands of the diplomacy."

Finally, he begged them to sign the *Protokoll*, in order to present it to the different governments which they represent, for the purpose of establishing a general system, one law governing all the nations who participated at the conference; not that each country, as is the case now, should have quarantine regulations of their own.

On the whole, it seems to me that the Congress have not advanced our knowledge regarding contagious diseases, but admitted that very little is known respecting their origin, their prevention, their cure. They expressed their doubts, even, as to great benefits that were thought to be derived from the use of disinfectants, but as nothing better was known, they still recommended their use. The establishment of a permanent committee to study thoroughly these vital questions seems to be the wisest and most important resolution adopted.

The detention of vessels coming from an infected port, or having a case or two of contagious disease on board, for weeks after their arrival with valuable cargoes and hundreds of passengers, costs often thousands of dollars and considerably disturbs the commercial intercourse of two distant cities or countries, and is worth while being fully discussed by competent authorities. On the other hand, if through too lenient measures the lives of the citizens of a healthy city should be jeopardized, no quarantine measures would be too strict, too severe to prevent such a calamity. In my opinion, no country is more interested in clearing up these important, yet unanswered, questions than the United States. Holding, as we do, intercourse with all parts of the world, and having the greatest commercial interchange with all the nations on the face of the globe, we should take an active part in the deliberations of such scientific conferences, and I can only again regret that the United States have sent no one to the Congress that has just closed its session.

Very respectfully yours, RUDOLF TAUSZKY.

JOURDAIN REDIVIVUS.

BOSTON, Sept. 3, 1874.

MESSRS. EDITORS,—Among the petitions presented to the Board of Aldermen at their last meeting was one from William H. Gertz, asking for a license for a "Museum of Natural History and Science" at 542 Washington Street.

Going by Jourdain's "Gallery of Anatomy," this morning, I noticed that the name of "Jourdain" had been carefully painted out, and I further noticed that the number was *five hundred and forty-two!*

Putting two and two together, it looks as if "Dr." Jourdain was tired of waiting for *his* license and had adopted this subterfuge.

As the JOURNAL was so forward last winter in abating the Jourdain nuisance, I thought you might like to have your attention called to this new move.

W. C., JR.

Medical Miscellany.

Dr. Budd estimates that an average of 15,000 persons die, and 140,000 are attacked, annually in England by enteric fever.

Dr. Westphal, who for some time held the office of Director of the Department for Diseases of the Mind and Nervous System in the Charité Hospital, has been appointed ordinary Professor of Psychological Medicine in the University of Berlin.

Ambulances.—Philadelphia has an ambulance station in telegraphic communication with all the police stations, so that a summons for medical aid and an ambulance may be sent from any section. A surgeon will be promptly despatched, with all needful appliances, to the scene of accident.

The New Medical Directory of Massachusetts is making satisfactory progress, and will be published early in October. We have been favored with an examination of the proof-sheets, and can bear witness to the thoroughness with which the work has been done. Physicians will find the book as indispensable as a dictionary.

"The Paris Medical Record" is the title of a new venture in medical journalism. The Editor states his conviction that, "notwithstanding the great number of medical periodicals in existence, the thirst for knowledge is so intense that the supply is still far short of the demand." Hence this very promising bi-monthly review of the progress of medicine. The journal is published in Paris in the English language, and the initial number is made up mainly of translations of lectures and other contributions to medical science by the Paris professors.

Treatment of Zona by Collodion and Morphia.—Dr. Bourdon, Hôpital la Charité, after having tried a great many local means for treating the above disease, and checking the intense pain, has definitively adopted the following plan:—Without opening the vesicles, he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains. The mixture must be put on pretty thickly. The pain ceases from the second day, and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness.—*Canada Lancet.*

It is contemplated to erect a memorial statue in honor of Ephraim McDowell, M.D., of Kentucky, the *founder of ovariotomy.* The appeal for aid to the project is first made to the women of the world who have been rescued by ovariotomy; next to the members of the medical profession, whose resources have been so greatly increased; lastly, to all who appreciate this advance in surgery, and its originator as worthy of the gratitude of the human race. All contributions to the memorial fund should be sent by money-order or registered letter, addressed to Dr. James M. Keller, No. 58 Green Street, Louisville, Ky., who has been appointed secretary and treasurer by the committee.

Swallowing a Tool-chest.—It is reported that in the different prisons of Paris there are five or six deaths every year from the effects of swallowing what is known as an "escape-box." This remarkable box is made for the special accommodation of prisoners. It is of polished steel, about three inches long, and contains turnscrews, hammers, silk thread, and other implements necessary for escape. The box appears to be easily swallowed, but sometimes fails to reappear as intended, and the death of the victim is the result. But, when it does pass the bowels, the lucky prisoner is prepared to cut the thickest iron bars and set himself at liberty.—*New York Medical Journal.*

PETRIFACTION VERSUS CREMATION.—Dr. Steinbeis, of Würtemburg, proposes to dispose of the dead by placing the body in a trough of cement, and then filling the space with liquid cement, which will harden and convert the whole into a solid mass of stone. The blocks thus obtained may be piled up, buried, or inscribed and set up to do duty as both tombs and tomb-stones. This method, if generally adopted, possesses some advantages for posterity, as future generations would probably use the obsolete blocks for building material.—*New York Medical Journal.*

ATROPIA IN PHTHISICAL SWEATING.—Dr. James W. Williamson reports, in the *Lancet* of July 25th, the results of Dr. A. H. Hassall's experience with atropia in the night-sweating of phthisis. In sixteen cases in which the remedy was tried, he found the perspiration either wholly arrested or materially diminished; but in only one-fourth of the number was the effect permanent. The dose given was one-eightieth of a grain, in the form of pill, with extract of gentian. The quantity was increased, as it seemed necessary, to one-sixtieth or one-fiftieth of a grain. The watery solution of atropia was found liable to spoil, and inferior in its effects to the solid dose as administered. In some patients, the sensibility to the atropia rendered its use inadmissible; but in a large class of cases it is believed that it will answer a good purpose after other remedies have failed. The cases above mentioned were treated in the Royal National Hospital for Consumption, Ventnor.—*New York Medical Journal.*

UNPLEASANTLY SUGGESTIVE.—From an address by the President of the Massachusetts Society for the Prevention of Cruelty to Animals, we quote the following:—

"It is estimated that about six per cent. of cattle, and about nine per cent. of sheep and swine, nearly 600,000 in all, annually die on the passage to market from the west, and a large portion of these are sold in our markets, either as meat, or rendered into cooking lard; while the cattle that get through alive, for the want of food and water, and by reason of the cruelty inflicted upon them, after losing on the average, in transportation, nearly a hundred pounds each in weight, from the most juicy and nutritious parts of the meat, come out of the cars full of fever, and with many bruises, sores and ulcers; and these, together with smaller animals, to which the loss and suffering is, in proportion, equally great, are all sold in our markets for food."

DIED,—At Bethlehem, N. H., Sept. 4th, Jeffries Wyman, M.D., of Cambridge, aged 60.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities for the week ending August* 29, 1874.

Boston, 167; Worcester, 34; Lowell, 42; Milford, 3; Chelsea, 14; Cambridge, 35; Salem, 16; Lawrence, 21; Springfield, 23; Lynn, 18; Gloucester, 7; Fitchburg, 3; Newburyport, 2; Somerville, 12; Fall River, 36; Holyoke, 7. Total, 440.

Prevalent Diseases.—Cholera infantum, 122; consumption, 50; diarrhœa and dysentery, 28; typhoid fever, 13.

The mortality from prevalent diseases does not show any material change as compared with last week.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 5, 183. Males, 90; females, 93. Accident, 4; apoplexy, 3; inflammation of the bowels, 4; disease of the bladder, 1; bronchitis, 1; congestion of the brain, 4; disease of the brain, 3; cancer, 3; cholera infantum, 44; cholera morbus, 2; consumption, 26; convulsions, 1; debility, 2; diarrhœa, 9; dropsy of the brain, 2; drowned, 2; dysentery, 4; diphtheria, 1; scarlet fever, 1; "congestive" fever, 1; typhoid fever, 8; disease of the heart, 6; hæmorrhage, 1; homicide, 1; intemperance, 1; intussusception, 1; jaundice, 1; lockjaw, 1; disease of the kidneys, 1; congestion of the lungs, 3; inflammation of the lungs, 10; marasmus, 16; old age, 4; paralysis, 2; pyæmia, 1; starvation, 1; suicide, 1; teething, 3; whooping cough, 3.

Under 5 years of age, 107; between 5 and 20 years, 9; between 20 and 40 years, 32; between 40 and 60 years, 17; over 60 years, 18. Born in the United States, 147; Ireland, 30; other places, 6.

THE

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Original Communications.

SOME EXPERIMENTS UPON THE CURVED LINE OF DULNESS WITH PLEURITIC EFFUSION.

By G. M. Garland, M.D.

It occurred to me that, if a fluid capable of setting could be injected into the pleural cavity of an animal, it would subsequently admit of exposure by dissection without disturbance of the mutual relation of lung and effusion, and thereby aid in interpreting the mysterious writing on the wall.

With the kind assistance of Prof. H. P. Bowditch, I therefore began a series of experiments upon dogs, in his laboratory. The results obtained are not as complete and satisfactory as might be desired, but my apology is that my time is too limited by other engagements for more complete investigation of the subject at present.

We employed, in our experiments, several forms of glue and gelatine, with chromate of potash as a hardening agent. Mutton suet and plaster of Paris were also used. The plaster of Paris gave the most satisfaction, but required great expedition in preparing and injecting it, as it set so quickly. It was mixed with water to a thick fluid consistence, and was then poured into a glass flask. This flask was arranged like a common wash-bottle. The air within it was condensed by pressure from a rubber bulb, and this condensed air drove the fluid through a rubber tube connected with a canula in the dog's side.

One or two of the early experiments were aborted by the admission of air into the chest. The air allowed the lungs to collapse, and the injection assumed a hydrostatic level.

To avoid this casualty, we chose a region where the canula could be boldly plunged through the chest-walls with least danger to the contained viscera. During full inspiration, the lungs occupy all the thoracic space which is accessible to them. With expiration they contract, allowing the upper surface of the diaphragm to come in contact with the thoracic walls for some distance above its line of attachment.

The canula, previously filled with water retained by a stop-cock, was plunged into this space between the ninth and tenth or the tenth and eleventh ribs in the axillary line. By inserting the finger through a small opening in the abdominal wall, the canula could be felt sliding along above the diaphragm. Its blunt end prevented accident, while, by its conical shape, it plugged the opening it made in passing through the muscles as it entered.

Actual measurement of the amount injected each time was not made, inasmuch as this point could be of value only by comparison with a

thorax of fixed size. No two of the dogs were of the same size. The injections, therefore, are merely designated small, medium or large. Both dead and etherized living dogs were injected, with no difference in the results.

After allowing time for the setting, the skin of the animal was removed and the chest carefully percussed and outlined. (See Figures 1 and 2.) The thorax was then opened, and the external line of dulness compared with the internal condition of affairs.

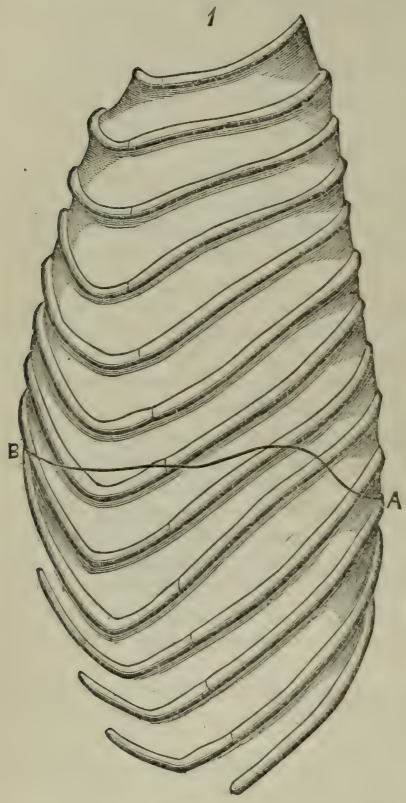


FIG. 1.
A B represents the simplest form of a curve. The effusion was small.
A is opposite the eleventh rib on the back.

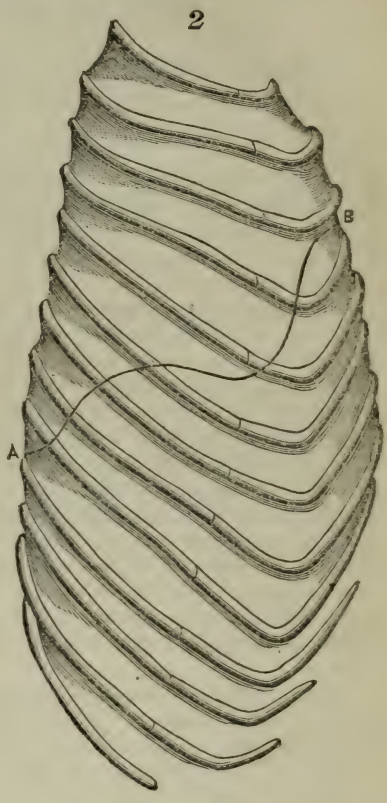


FIG. 2.
A B represents a curve of a somewhat larger effusion. The sudden rise of the curve, as it approached the sternum, was found to be partially due to a displacement of the heart by an injection in the opposite chest.

The first point which our experiments demonstrated with regard to the mutual relation of lungs and effusions is that the *resisting lung*, rather than the encroaching fluid, is the chief moulding agent and factor in determining the curve of dulness. In every instance, the lungs were practically unaltered in their gross anatomical shape, though of necessity compressed and occupying less room.

The edges of the lungs, even, were not rolled in, as the moulds show for themselves. With forcible inflation of the lungs, these bor-

ders act like wedges in cleaving the mould asunder. With the largest effusions, the lungs were approximated to the fœtal condition of atelectasis, but with form intact.

The first effect of a small effusion was to swing the lungs upon the large bronchi as hinges, *upward* and *outward* against the walls of the chest. Little or no fluid separated the lungs from the chest. It was only in cases of very large effusions, or of concurrent pneumo-thorax, that such separation occurred.

Now the normal shape of the lower border of the lungs is a curve, with the lowest point behind, and rising as it advances forward. Hence, with a small effusion, the fluid being moulded to the lower surface and border of the lungs, as I have stated, the curve is simple and easily understood. [See figure.] Internally, between lung and heart, there seemed to be the point of least resistance to the fluid, which here found an escape by shooting up some distance. The actual pressure of the lung upon the surface of the fluid was sufficient to sustain a considerable column of the effusion in this region.

Larger effusions, I have said, gradually crept in between chest-wall and lung. The curve must, therefore, be necessarily modified according to the depth of the intervening fluid, i. e., according to the relative ability of the different portions of the lung to resist lateral pressure and retain sufficient air to be resonant. This requires further investigation. Wintrich says the curve is always highest *behind*, and thence declines to the median line in front. Dr. Ellis finds, however, that the line of dulness is *lowest behind*, rises on the sides, and sinks again in front. We found, with small and medium effusions in dogs, that the curve and lung were *lowest behind*. Thence the curve rose till it reached the side, whence it proceeded, nearly horizontally, to the sternum.

The borders of the lung overlap the effusion somewhat, i. e., wedge themselves in between chest and fluid.

We made but one injection in the human body, and that in an infant a few days old. Unfortunately, we neglected to percuss the chest and note the curve, but the experiment was so far successful as to convince us that the principle of the lung moulding the effusion was the same in the child as in the dogs.

I have insisted upon the lungs moulding the fluid, because it seems to me to be the most important factor. I do not deny that the lungs may, in turn, be moulded by the effusion to some extent. It may be true with human lungs. It did not appear prominently with the dogs.

I content myself with stating what we saw, without attempting any theory why, how, or with what force, the lungs oppose the effusion. I hope, at some future time, to have an opportunity to renew these experiments upon the human cadaver, and note the modifications of different positions of the body upon the relation of the parts. Such observations might throw more light upon the conditions already seen and described.

Incidentally to the injection of living dogs, we observed the following facts, which are of some interest.

The dog's breathing, which had been more or less diaphragmatic, became purely thoracic immediately on the injection of the fluid. On opening the abdomen after the injection, the diaphragm was found bagged down like a lobster net. With each act of inspiration, however, it could be felt to rise, being drawn upward by the separation of its points of

attachment. The fluid could also be felt shifting its form and level with every act of respiration, thereby accommodating itself to each change in its containing vessel. That this movement of the diaphragm was purely a passive one, was demonstrated by grasping the muscle tightly between two fingers. It was perfectly limp and passive, devoid of muscular action.

It was suggested that, in such an abnormal position, if the diaphragm should by any means contract, it would, of necessity, act as an expiratory muscle rather than an inspiratory one, as it normally does. To demonstrate this point, we dissected out the phrenic nerve in the neck, and irritated it by electricity just above its entrance into the chest.

Before injection, such irritation always produced a violent act of inspiration, followed either by a tonic spasm of the chest-muscles or by rapid irregular breathing during the continuance of the irritation.

The same irritation of the nerve, after the injection, produced a violent act of expiration. It is evident that, with the muscle bagging down, contraction of its fibres must draw the dependent portion upward, and thus produce the phenomenon described.

I conclude that, with effusions in the chest, the diaphragm must play a passive or contradictory part.

CASES OF DRAINAGE FROM THE CUL-DE-SAC OF DOUGLASS AFTER OVARIOTOMY.

By Gilman Kimball, M.D., of Lowell.

(Continued from page 157.)

Case VIII.—Mrs. C., of Haverhill, Mass., 47 years of age, married; three children. Always healthy till within the past year. Eight months since, first discovered a hard lump in right side just above the ilium, attended with some discomfort, but not enough to interfere with the usual duties of her household.

Early in the spring of 1870, four months from its first appearance, the tumor began to increase in size.

I was called to see her in June. I found abdomen slightly prominent, with a fluctuating tumor occupying the right hypochondrium and extending toward the opposite side a little beyond the median line.

Several weeks elapsed and I saw the patient again. Size of abdomen greatly increased and very sensitive; fluctuation throughout; a quick feverish pulse; loss of appetite, with intolerance of food and frequent vomiting, indicated peritonitis, in a greater or less degree. The case evidently was going on badly, and it now remained to decide whether, in the present aspect of the case, surgical interference of any kind could afford any essential relief. Obviously the only hope in this direction was in the early removal of the disease. A proposition to this effect, being submitted to the patient and her friends, was accepted without hesitation.

As a preliminary measure, tapping was resorted to. This was for the purpose of relieving present suffering; also with the hope of putting the patient in a better condition for the final operation at a future day. A puncture was made just below the umbilicus, where the fluc-

tuation was most marked. The withdrawal of the trocar was followed by no fluid. A second puncture between umbilicus and sternum was equally unsuccessful, no fluid escaping through the canula, excepting a small amount of serum. Soon after the withdrawal of the trocar, however, there escaped through the canula a small quantity of amber colored, jelly-like substance similar to what is frequently found in ovarian cysts. This circumstance gave a new aspect to the case. It now became quite clear that no cyst had been punctuated, but that the gelatinous matter escaping through the last made puncture was only a sample of what was occupying the abdominal cavity in a large amount.

No marked ill effect followed this procedure, yet it was certain no advantage had been gained by it; on the contrary, the patient continued, as before, to grow daily worse. An early removal of the disease was now decided upon, and the operation was performed accordingly, the 20th June, three days after the tapping. Present and assisting, Drs. Drinkwater, Towle and Crowell.

Immediately on making an incision through the parietes, it was seen that the peritoneal cavity was filled with a large amount of thick gelatinous substance, similar in color and consistence to calf's foot jelly. It was lodged in every direction throughout the abdomen, adhering to the viscera so as to be detached with the greatest difficulty; indeed, at some points, its detachment was quite impossible. The cyst from which this substance had escaped, evidently constituted the main bulk of the tumor. There were, however, several smaller cysts with walls entire, and containing, each of them, a pint or more of the same jelly-like substance. As these were drawn out, they were found to have originated from the right ovary. The pedicle was slender, and could be safely secured by a single ligature. It was too short to be brought outside, and having been severed as closely as possible to the tumor, was allowed to drop back.

In proceeding to clear the abdomen of the foreign material which thus far had seriously embarrassed the operation, there came to view still another cyst, containing a quart or more of substance precisely similar to that already described. It proved to be a second ovarian tumor, and connected with the left ovary. It was dislodged entire, and its pedicle secured by a single ligature. Both ligatures were now twisted together, and passed out of the pelvis, through the cul-de-sac of Douglass. The plan of conducting through a canula was repeated in this instance, the complications being such as to render it almost certain that pelvic accumulations would occur, and no other means could be devised so likely to secure their direct and immediate discharge.

Nothing remained to complete the operation but to close the wound with a proper number of deep and superficial sutures, and apply outer dressings in the usual way.

July 1st, morning after operation.—Patient had a very comfortable night; slept several hours, and suffered only slight pain in the abdomen. Pulse 106. Skin moist; urine in good quantity, drawn away by catheter; countenance good; vomiting occasionally, the same as before operation.

July 2d.—Very much as yesterday; no pain; some distention of abdomen; tendency to vomit. Pulse 110. Countenance still cheerful;

no discharge through canula. Ordered beef-tea injections, to be repeated every two hours.

July 3d.—Symptoms generally very much the same as yesterday. Some discharge *per vaginam*, partly outside, and partly through the canula.

July 4th.—Continues to suffer much from frequent vomiting; otherwise no very marked change since yesterday. Free discharge through canula; continue beef-tea injections.

July 6th.—Very little change for the last two days, excepting a gradual loss of strength. Vomiting still continues; slight distention; discharge from vagina abundant, and very fetid. Pulse 112.

The history of this case, subsequently to last date, was obtained from the attending physician and an intelligent nurse. In most particulars it was the same as has already been described, the patient growing more and more exhausted from day to day till her death, which took place the twelfth day after the operation. During two or three days before death, a large quantity of fetid matter escaped through several openings in the line of the incision. Meanwhile, the discharge *per vaginam* was in no degree diminished. Antiseptics thrown freely into the peritoneal cavity, through the incision as well as through the canula, seemed to produce no favorable impression. In quality and quantity the poisonous accumulations continued unabated to the end. The obvious cause of death in this case was septicæmia.

Case IX.—Mrs. M., of Jefferson, Me., 47 years old, naturally healthy, nine years ago first noticed a hard lump, the size of a goose-egg, in her left hypochondrium. Its growth was very slow, and gave little inconvenience till within the past year. Last summer had severe peritonitis; immediately after, tumor increased rapidly. Came to Boston to consult me the last of September, 1871. Abdomen much distended. Multilocular ovarian tumor, very large. System suffers seriously, as shown by emaciation, embarrassed breathing, œdema of lower limbs, loss of appetite, rejection of food, &c.

An operation is earnestly desired, and the case, though of an unpromising character, is regarded as one that justifies it.

Oct. 11th, I visited the patient at her home in Maine. Due preparations having been attended to, ovariotomy was performed the same day; Dr. Horne, of Jefferson, assisting. Incision through the parietes, just below the umbilicus, was followed by a gush of six pints of ascitic fluid; a large cyst presented itself, was tapped, and sixteen quarts of dark-brown viscid fluid drawn away. The incision was further enlarged, and the entire tumor dislodged, several cysts being first evacuated as they came to view. No adhesions. No cystic matter passed into the peritoneal cavity. Pedicle broad and thick, secured by clamp; wound closed by deep clamp sutures; lower angle of incision left open for escape of secondary accumulations. As additional means to the same end, the floor of the pelvis was punctured with trocar and canula; trocar withdrawn and canula allowed to remain. Dressings as usual: hypodermic injection of one-fourth of a grain of morphia, immediately after placing the patient in bed.

Night following operation, very comfortable; no pain or other suffering; bloody serum passing freely through canula.

2d day.—Symptoms still favorable; no signs of approaching peritonitis.

3d day.—No special change since yesterday.

4th day.—Pain in region of bladder, and urgent desire to micturate. Catheter passed several times, but with no relief, the instrument seeming to be clogged with mucus. After several hours of suffering, the bladder was evacuated by voluntary effort; urine dark-colored and offensive; relief immediate. After this, symptoms continued favorable (excepting considerable prostration) for the next twelve days; meantime, beef-tea and brandy were given in liberal quantities, both by stomach and rectum.

Flowing through the canula had ceased on the fourth day; two days after, a free discharge of offensive matter was forced through an opening at the lower angle of incision. Through this same opening, antiseptics (chloride of soda, largely diluted with water) were afterwards injected every few hours. The case continued to progress favorably till the end of the third week, when a profuse and most exhausting diarrhœa supervened, attended with nausea and loathing of nourishment of every form. The diarrhœa was controlled on the fourth day; directly after, the condition of the patient rapidly changed for the better. The stomach, no longer satisfied with liquid diet, demanded substantial nourishment; beside milk and eggs, beef and mutton were taken freely and with a relish. Improvement now continued with no further interruption, so that by the end of the eighth week the patient considered herself substantially cured.

The interest in this case relates chiefly to two practical points: first, the plan of drainage through the cul-de-sac of Douglass; second, the early, persistent and liberal use of nourishment and stimulants. In regard to the first point, viz., the plan of drainage, the arrangement in this instance was less satisfactory than it had proved to be in previous cases. The flow through the canula was quite free for the first three days, but on the fourth, the instrument having been accidentally displaced, the escape of matter in that direction suddenly and entirely ceased. To this event may be attributed the further accumulation of poisonous matter in the pelvic cavity, and its subsequent discharge through the incision; also, those marked manifestations of septicæmia that followed a few days after. The degree of mischief that might have occurred had the canula arrangement never been resorted to at all, it is, of course, impossible to calculate. It is, however, no more than reasonable to suppose that the early relief secured by this means was a circumstance of no inconsiderable importance in its bearing upon the final result of the case.

The second practical point suggested by this case has reference to the use of nourishment and stimulants, a practice, according to my experience, not only admissible, to some extent, at least, in every case of ovariotomy, but in most cases absolutely essential. The principle is well illustrated in the present instance, where, in addition to a low degree of vitality, consequent upon the development of an exhausting disease, and a still further depression incident to a grave operation, we had also to contend at one time with the all but overwhelming effects of septicæmia. The patient was saved, no doubt, by the persistent and liberal use of substantial nutriment and stimulants.

This form of practice I regard as by no means limited to its therapeutic effect: it has a prophylactic value as well. Inflammation following ovariotomy, with its usual accompanying peritoneal effusion,

is rarely, if ever, of an acute character. If it occurs at all, it is of a subacute form, associated with, if not dependent upon, exhausted vitality. To prevent its invasion, therefore, as well as to control its effects, the course of treatment, as above illustrated, is the only one that can be safely relied on; and certainly, if symptoms of septicæmia occur, its neglect would only deprive the patient of the last and only chance of escape from death.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. Edes, M.D.

ALCOHOL.

In the *Practitioner* of July, 1874, Dr. Anstie gives the results of some new experiments upon the behavior of alcohol in the body. After recapitulating the results of previous experiments, which have been referred to in these reports and elsewhere, showing that only a minute proportion of alcohol is eliminated by the skin, breath and urine, he details several experiments upon dogs confined in a box to represent Pettenkofer's chamber, so arranged that all the excreta could be examined. In the first case the total elimination by a dog of ten pounds weight, after the ingestion of 47·73 grains of absolute alcohol was only 0·192 of a grain. To another dog, weighing nearly ten pounds, an ounce of brandy (= 190.92 grains absolute alcohol) was given daily for ten days. The rate of elimination was 1·13 grains per diem. The dog was then killed, and the total amount of alcohol present in the entire body and its contents (not in blood alone) estimated. It was 23·66 grains. He had had half an ounce of brandy two hours before death.

It appears from this absolutely proved, that as the dog received 2,104 grains of absolute alcohol, eliminated 11·3 during life, and contained only 23·66 grains after death, over 2,000 grains must have been destroyed in the body.

Dr. Parkes (*Proceedings of the Royal Society*, 1874, No. 150; *Centralblatt*, July 4, 1874) has repeated his experiments upon the influence of brandy upon the bodily temperature, the pulse and the respirations of healthy men.

The former experiments did not in all points agree with those of other observers. In the present series, Dr. Parkes found that cognac, in moderate dose (= 60 ccm.=℥iv. absolute alcohol), usually lowered the temperature in the rectum, although not always. It never increased it. The pulse, during rest, became slightly accelerated, likewise fuller and softer. The vessels of the head showed increased fulness. The effect on the respiration was but slight. Dr. Parkes attributes the difference in the effect upon the pulse in the two series of experiments to the fact that in the former, but not in the latter, the alcoholic liquor was taken upon a full stomach.

Lewin (*Centralblatt*, Aug. 8, 1874, p. 593) gives the results of his experiments on various animals, which confirm those of most other observers, namely, a slight rise of pulse soon after a dose of alcohol,

then a slight fall; a decided but not very great fall of temperature, except when narcotism was induced.

CHLORAL.

M. Oré (*Journal de Thérapeutique*, No. 5, p. 185) having previously experimented upon animals, has twice injected chloral into the veins in man, and finds it to be an exceedingly powerful anæsthetic.

In one of these cases a man was attacked with tetanus, in consequence of a wound to the middle finger. M. Oré injected, at two doses, with an interval of three or four minutes, a solution of nine grammes (= 135 grains) of hydrate of chloral in ten grammes (2½ drachms) of water, into the radial veins.

Immediately after the second injection, the patient fell into a calm sleep, the pulse fell, and the jaws could be separated to a greater distance. Nothing, not even the evulsion of the finger-nail, could wake the patient or provoke any spasm.

Two more injections were practised, and the patient recovered (*Op. cit.*, No. 6). No phlebitis was produced, but a small abscess due to the penetration of the chloral into the cellular tissue.

MM. Deneffe and Van Wetter (*Journal de Thérapeutique*, No. 13, p. 513) injected eight grammes (125 grains) of chloral into the radial vein of a patient who was then operated upon for cancer of the rectum. The operation was done without pain or accident, but the sleep lasted nearly twelve hours.

The procedure of M. Oré seemed to meet with general disapproval. M. Gosselin cites among its disadvantages, adhesive or suppurative phlebitis, coagulation of the blood, difficulty in producing anæsthesia, and alarming duration of the sleep. What, he asks, are its advantages?

M. Vulpian (*Journal de Thérapeutique*, No. 12, p. 474) states that he has three times observed in dogs, into whose veins he had injected chloral to produce anæsthesia, a quite abundant hæmaturia. He also thinks, from observations in his laboratory, that the subcutaneous method is not free from danger of abscesses and gangrene.

These accidents have been observed by M. Giraldes in children, so that he has abandoned this (subcutaneous) method of administration.

M. Cruveilhier (*Journal de Thérapeutique*, No. 9, p. 349) reports the case of a patient with traumatic tetanus, who received intravenous injections of chloral after the manner of M. Oré. The tetanus was not modified, and the patient died during sleep.

At the autopsy, the left fore-arm, which had received one injection, was the seat of an abscess of some size. The cellular tissue had sloughed, and the external coat of the ulnar vein was black and sloughy. All the other veins which had been punctured were a little thickened, their internal surface had lost its polish, and they contained clots of some size.

M. Leon Labbé reports a similar case, where the tetanus was not cured by the solution of Oré, but there was no lesion of the veins following the injection.

Dr. Anstie reports (*Practitioner*, Feb., 1874) the case of a medical man who used to take half an ounce of chloral in twenty-four hours, and on one occasion more than an ounce. On this day he did not sleep at all in the day, but dined at 7.30, and had no sleep that night.

He suffered from neuralgic pains of great severity, which Dr. Anstie seems to have noticed in other cases, and compares to those observed after prolonged abuse of alcohol or chloroform. After this person had been taking it for some time, he noticed that the use of a very small quantity of wine would flush the face, suffuse his eyes, and bring on a severe headache (vasomotor paralysis?).

As the question of the decomposition of chloral appears to be an unsettled one, it is interesting to notice the assertion of Byasson (*Journal de l'Anatomie et de la Physiologie*, Jan., 1874, p. 87) that he has proved that chloral is decomposed into chloroform and eliminated by the lungs. He says that alkaline bicarbonates, in presence of albumen and serum of blood at the temperature of 40° cent., decompose hydrate of chloral.

He thinks, however, that chloral possesses an action distinct from that of chloroform. He says three grammes (45 grains) of chloral produces almost certainly sleep of several hours, while two grains of chloroform, being nearly an equivalent (3 grammes chloral=2·17 grains chloroform), given in pearls produces merely an antispasmodic effect, and neither sleep nor marked diminution of sensibility. (This quantity of chloroform, if *inhaled* without loss, is not destitute of soporific effect. The *length* of sleep after moderate doses of either depends largely upon the occurrence or not of any disturbance.)

A case (*Journal de Thérapeutique*, No. 9, p. 347) where rectal injections of chloral were successfully used in a case of threatened abortion, was used as an argument on each side of this question by the respective partisans.

M. P. Bert (*Journal de Thérapeutique*, No. 7, p. 274) reports some experiments which favor strongly the transformation theory. They were made upon the flowers of mahonia and berberis, which possess sensitive stamens. Nitrous oxide seemed to have no anæsthetic effect, but the flowers after twenty-four hours appeared faded and wilted.

The vapors of chloral hydrate and of chloroform were diffused under two bell-glasses which contained each a flower-bearing branch of mahonia. With the chloral, there was no action at the end of some hours; with the chloroform, anæsthesia was produced at the end of some minutes. Branches were also placed in water, containing, respectively, chloral and chloroform. That in the chloral solution died in some hours, without anæsthesia having been previously produced. On the branch placed in chloroform water, the sleep of the stamens was manifest in a few minutes.

If, however, to the chloral solution a small quantity of carbonate of soda was added, the movement of the stamens was suspended as in the glass where chloroform was mixed with the water.

Croton-Chloral.

Experience with croton-chloral continues to vary greatly, especially in regard to the dose. Dr. Yeo (*British Medical Journal*, March 7, 1874) does not consider it safe in any case to go beyond fifteen grains, and this amount should be reached by doses of two to five grains every hour or half hour.

Dr. Durrant saw a case of severe and persistent neuralgia relieved in two days and cured in three, by one grain three times a day. In another case it utterly failed.

Dr. Lewis used five grains twice a day in neuralgic dysmenorrhœa with remarkable benefit.

Dr. H. A. Allbutt used half-drachm doses every night for three weeks in insomnia. There were only three nights of calm sleep in this time. He naturally concludes that it is not of much use in sleeplessness, in which opinion Dr. Gray (*British Medical Journal*, March 28, 1874) agrees with him, while Dr. Yeo says as a hypnotic it has no advantage over chloral. Occasionally the effect of chloral is increased by the addition of five to fifteen grains of croton-chloral.

Coca.

This plant, which is used in Peru and Bolivia by the Indians, who chew it habitually, and which has properties somewhat like those of tea and coffee, has been imported into Europe, and somewhat into this country. Like many other drugs, it has been extravagantly praised, but it appears as if it might hold a useful place as a nervous stimulant and tonic. It is said to have been successfully used in dyspepsia, flatulency, colic, convulsions, debility following severe acute affections, anæmia, scurvy, &c. A moderate dose renders the performance of muscular exertion easier. The leaves chewed, or in weak infusion, stimulate the gastric nerves, greatly facilitate digestion, and are useful in relieving the sense of fatigue from excessive mental or physical exercise.

In a case of diabetes, where the weight was decreasing when opium alone was given, a temporary gain took place under opium and coca. There was no influence on the quantity or specific gravity of the urine. In phthisis it did not do any good. (*British Medical Journal*, March 7 and March 28, 1874.) Most, though not all, experimenters have determined a diminution of urea eliminated.

(To be concluded.)

The Paris correspondent of the *London Medical Record* of August 12, 1874, criticises very severely the hygienic condition of the Parisian hospitals. He alleges that to the want of cleanliness in the surroundings of the patients, to the filthy dressings which are applied to their wounds, to the use of polluted instruments, sponges and brushes, is due in a great measure the fearful mortality after surgical operations. He states that M. Gosselin has made a great discovery that ought not to pass unnoticed. "M. Gosselin has arrived at the conclusion that the cause of the excessive mortality in the French hospitals is, that *there is too much cleanliness* in the wards. This, you see, is a truly French thesis, and M. Gosselin defends it with much suitable fire and ingenuity. 'You are always scrubbing the floors,' he says to the sisters of the *salles*, 'sweeping down the walls, brushing the dust off the curtains, shaking the bed-clothes. Now all persons are agreed that this dust which you are incessantly removing is loaded with zymotic germs. *Let it lie*, therefore. So long as it reposes in peace it is at least harmless; when you fill the atmosphere with it, it flies hither and thither, settles upon wounds, touches upon the mucous membranes, and enters into the systems of the patients by the mouth, the nostrils, the air-tubes and the digestive passages.' This is charming, and might be most amusing as a satire on the dirty habits of our French hospital guardians, if it were not intended seriously, and if it did not come from a surgeon of serious character and great merit, such as M. Gosselin."

Bibliographical Notices.

Transactions of the Twenty-first Annual Meeting of the Medical Society of North Carolina. Raleigh, N. C. 1874.

THE reader of these Transactions will be forcibly impressed with certain characteristics which one might well wish belonged to all medical associations. In the first place, the Society shows a vigor worth emulating. Although the total fellowship numbers less than one hundred and fifty, including the honorary members, and although of this number only forty answered to their names at the opening session, the meeting lasted through three days, assembling in the morning and afternoon, and, on the second day, in the evening also. A great amount of business is placed on record as having been transacted, and it is evident that very little is left to committees, the Society preferring not to delegate its authority in such matters.

But the feature that will be most likely to attract the attention of those unfamiliar with such a condition of things in medical societies, is the noteworthy number and variety of papers communicated. In these three days, we have the reports of no less than twenty-eight contributions, not including the annual address. Of course, these papers vary greatly in degree of merit, and some of them are not published in the Transactions, but those that are printed are marked by a directness and earnestness that cancel any want of rhetorical elegance. These medical writers of North Carolina do not waste words in flourish and verbiage, but they report their cases with clearness and for the evident purpose of eliciting critical comment from their associates. We have space for a passing allusion to only two or three of the most suggestive of these papers.

Dr. Payne offered a vigorous plea for venesection in puerperal eclampsia. Whatever the underlying condition be, he would bleed with a boldness perfectly terrifying to those who believe "the lancet a relic of barbarism." The author reports a number of cases in which almost marvellous effects are claimed as the results of large venesection; in one case, seventy ounces were taken, *pleno rivo*, and the patient "recovered well." As concomitant treatment, Dr. Payne gives opium and morphia in full doses. Not only is bleeding practised thus to control convulsions, but when, during pregnancy, any premonitory signs of uræmia present themselves, the lancet is also resorted to, and it is regarded "as a significant fact that not one of these cases, during a practice of nearly twenty years, has ever had a puerperal convulsion." Dr. Payne's method, though undoubtedly "heroic," would not, in all latitudes, be regarded as orthodox.

Dr. Wood, of Wilmington, reports a case of poisoning by Paris green, the patient having taken a teaspoonful of the pigment with suicidal intent. The symptoms resulting were not those typical of arsenical poisoning, but simulated those ot cerebro-spinal meningitis : convulsions, opisthotonos, injected conjunctivæ, delirium, but no dryness of fauces, vomiting or diarrhœa. Recovery followed the exhibition of antidotes and the production of vomiting.

Dr. Lane, of Wilmington, reports five fatal cases of poisoning by the inhalation of carbonic oxide gas, the patients being seamen sleeping in an ill-ventilated forecastle and exposed to the gases from a coal-stove.

The Annual Address deals with the reciprocal relations of the medical profession and the public. The discourse is a manly, vigorous plea for the rights of physicians and a protest against unjust measures of legislation which make the profession unpopular. Incidentally, the orator advocates the education of women as physicians; and we observe that the Society does not content itself with discoursing in this direction, but puts itself among the radical reformers in this matter, for among the honorary members we observe the name of Dr. Susan J. Dimmock, of Boston, Massachusetts. A prophet is not without *honor* save in his own country.

These Transactions show the North Carolina Medical Society to be zealous and vigorous if not always discriminating.

Some Practical Hints for the Treatment and the Prevention of the Diseases of Women. By WILLIAM GOODELL, M.D. Philadelphia. 1874.

THIS pamphlet of thirty-three pages is an excellent contribution to the practical side of the subject which it discusses. In the limits which the author has allowed himself, a great deal is accomplished. The style is condensed, almost dogmatic, throughout, but perhaps this is not a disadvantage. The profession is under obligations to the author for a concise, practical guide in gynæcology, characterized by good sense and a conservatism born of ripe experience and intelligent observation.

For the local treatment of uterine disease, the following agents are recommended as caustics:—undiluted liquid carbolic acid or a saturated solution of the crystals, nitrate of silver in glycerine (a drachm to the ounce), the saturated tincture of iodine, fuming nitric acid and fused nitrate of silver. The caustic, carried on a probe armed at the end with cotton, is always passed, through a speculum, up to the fundus of the uterus, whenever the internal os permits, thus cauterizing the whole mucous tract. In this connection, the author remarks:—"I have about come to the conclusion that he is the most successful gynæcologist who is the most plucky, and that no matter how severe or mild the treatment of uterine disorders, the percentage of accidents will be about the same, and that a very low one." The cauterization is to be repeated once a week. When granular erosion is associated with an everted os, the author recommends the use of the strong nitric acid, applied freely to the cervical canal, less freely to the interior of the uterus, and not repeated in less time than a month. In the intervals of the cauterization, vaginal injections, or suppositories of astringent agents, are to be used methodically.

"Since congestion is the essential basis of uterine disorders," local blood-letting is urged whenever the os uteri shows a crimson hue. The spear-pointed scarificator is preferred for this purpose.

In the choice of a pessary for retroversion or retroflexion, Dr. Goodell gives preference to Smith's modification of Hodge's hard rubber instrument, the anterior arms being approximated and their tip bent abruptly downward. The author's experience with intra-uterine stem pessaries has not been encouraging. The treatment of an anteflexed and anteverted uterus by gradual dilatation being tedious and unsatisfactory, the writer urges the practice of rapid forcible dilatation. The use of tents is deprecated as a general rule, and the importance of avoiding their repeated introduction, one immediately after another, is insisted on.

In the treatment of the hæmorrhage from fibroid tumors, ergot is the main reliance, and, as a curative means, Hildebrandt's method of applying ergot subcutaneously is lauded. As a deodorant, antiseptic and local anæsthetic in cancer of the cervix, chloral hydrate is highly recommended, applied either as a lotion or in a vaginal suppository.

In the second part of his monograph, the author deals with the prophylaxis of uterine disorders. In the section on puerperal convalescence, he lays down some rather dogmatic innovations on traditional practice. From the first day after labor, the diet should be generous; the canonical purge on the third day should be dispensed with; premature exertion should not be allowed, but the recumbent posture may be intermitted early, and whenever the patient desires; the obstetric binder is useless, if not harmful, after forty-eight hours. In alluding to laceration of the perinæum in labor, the author says that many lacerations are due to the common mistake of making so firm pressure on the perinæum as to prevent its equable dilatation; the perinæum is not "supported" by this procedure. In the vast majority of cases, the perinæum does best when let alone, but in the exceptional cases demanding interference, the author renders aid as follows:—"Insert one or two fingers into the rectum and hook up and pull forward the sphincter ani towards the pubes. The thumb of the same hand is to be placed upon the fœtal head, scrupulously avoiding all contact with the fourchette."

The pamphlet closes with very timely criticisms of some of the fashionable and social follies of the present day—follies which entail as a punishment the

development of a long train of evils. The author speaks plainly and with emphasis of matters which recently have urged themselves on the public attention in connection with education, and cries aloud against conjugal sins in terms not to be misunderstood.

We cannot close our notice without an earnest hope that this little unpretentious pamphlet may have the wide attention which it deserves.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the Pathological Society of Philadelphia. Volume Fourth. Containing the Report of the Proceedings for the Years 1871–72–73. Edited by James Tyson, M.D., Hospital Lecturer on Pathology and Histology in the University of Pennsylvania, &c. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 250. (For sale by James Campbell.)

The Annual Report of the Kansas State Dental Association. Transactions at the Second Semi-annual Meeting, held at Ottawa, October 14, 1873, and at the Third Annual Meeting, held at Topeka, May 5, 1874. Lawrence, Kansas. 1874. Pp. 58.

Psychical or Physical. By C. H. Hughes, M.D., St. Louis. From the American Journal of Insanity, for July, 1874.

THE TREATMENT OF CHOLERA BY SUBCUTANEOUS INJECTIONS OF CHLORAL HYDRATE.—It is claimed that remarkable success has attended the treatment of cholera in India by subcutaneous injections of chloral hydrate. Mr. Higginson reports that he has treated nineteen cases by this method, and that death occurred in but two of these. The method is as follows:—

The injections were made into the arms and thighs, the canula of the syringe being plunged pretty deeply into the flesh. A solution was made of ten grains of chloral in one hundred drops of water. The greatest quantity used in any case was sixteen grains, given in eight injections. If the case was a bad one, four injections were made at once; then nothing was done for an hour, when the treatment was repeated if necessary. As a rule, sleep was induced within two hours. Nothing else was done, except shampooing the limbs and occasionally giving some cold boiled water.

The *British Medical Journal* remarks that "much more extensive observation is required before any definite conclusion can be arrived at as to the value or inutility of the treatment."

IN a paper "On the Occasional Arrestive and Discutient Influence of Pregnancy over Pelvi-abdominal Tumors," Alexander Milne, M.D. (*Edinburgh Medical Journal*, August, 1874), combats the commonly accepted doctrine that pregnancy not only accelerates the growth of ovarian cysts, but excites inflammation, adhesions and suppuration, which may be of a fatal character. He cites three cases in which ovarian tumors of the size of an orange or the closed fist, were entirely discussed by pregnancy and parturition, or were very much reduced in size. The paper concludes as follows:—"It would not be right for me to omit saying a word or two on the possible risks. Pressure may promote inflammation and adhesion, and it may induce a bursting of the cyst, with evil, nay fatal, results; still, from the experience of these three cases of unilocular ovarian tumor, I am more than ever inclined to think that pregnancy need not be the bugbear here that it has been represented. If, then, any Fellows have a maiden patient, both betrothed and the possessor of a unilocular ovarian, let them not say nay when asked if she may marry; on the contrary, and especially if the growth is small and pretty clearly a monocystic ovarian, let them sanction the step as a probable journey towards a perfect cure."

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 17, 1874.

THE sudden death of Professor Jeffries Wyman, at Bethlehem, N. H., on September 4th, has cast a gloom that will not be readily dispelled over the medical and scientific community. Those in other walks of life who had not the happiness to know him, may be surprised at the wide-spread regret following the death of one who lived so secluded, writing and saying so little as Dr. Wyman; but it was his rare privilege to inspire at first sight confidence and regard, which, with greater intimacy, ripened into esteem and affection.

Jeffries Wyman was born at Chelmsford, Mass., in 1814. He graduated at Harvard in 1833, and took the medical degree of the same University in 1837. In 1843, having given up all thoughts of practice, he became Professor of Anatomy and Physiology in the Medical Department of Hampden Sidney College at Richmond, Va., which position he resigned, after four years, to accept the Hersey Professorship of Anatomy at Harvard, and that of Comparative Anatomy at the Lawrence Scientific School. Though actively engaged in teaching and in scientific research, he found time to make, almost wholly at his own expense, the collection of comparative anatomy now in Boylston Hall, at Cambridge, which, for its size, is perhaps the most perfect one in America. He was an active member of the Boston Society of Natural History, of which he was the President from 1856 to 1870. At the foundation of the Peabody Museum of American Archæology and Ethnology in 1867, Prof. Wyman was appointed Curator, and to the end of his life he devoted himself chiefly to this institution. His admirable annual reports give some idea of the amount of his labors, interrupted as they were by his failing health. Though continually engaged in original research, frequently discovering new facts and confirming or refuting old theories, he published but very little, and that in the most quiet way. Few of his friends have been free from occasional feelings of secret irritation that his light was, as they conceived, hidden under a bushel, and that his retiring modesty deprived him of some part of the reputation that was his due. But now, as we look back with a clearer sight on his career, we would not change the past if we could. The results of his labors are none the less valuable that they have been announced with no flourish of trumpets, and his example, in these days of premature self-assertion, is above price. "We have lost in Prof. Wyman," writes Dr. Holmes, "as nearly perfect a model of the student and teacher of science as we have ever known or are ever likely

to meet with." He is a benefactor who presents to the young such an example of patient, modest, unostentatious thought. There was with him no jumping at conclusions; when he was certain of a fact, he gave it for what it was worth, and for no more. On the rare occasions on which he indulged in theories, these were advanced merely as possibilities, which might some day develope into probabilities, not as new revelations to which long-established facts must give way. It is no small merit to have been able to do the good he did to those who had the fortune to be his students, and especially to those who began human anatomy under his guidance. That student must have been dull indeed who could not catch some spark of the enthusiasm which the Professor's quiet manner was inadequate to conceal. As he spoke, the dry details of anatomy were clothed with an interest of which the student had not dreamed, and which was a constant incentive to new exertions. But no words of ours can do justice to his merit, and we close by quoting, from the *Advertiser*, the conclusion of Dr. Holmes's tribute to his memory:—

"He was prompt to recognize the merits of those whom he considered in any way his superiors, generous in his estimate of equals, and a willing helper of all those who looked to him for any kind of knowledge he could impart. In a word, he was always the same honest-minded, sagacious, unprejudiced, sweet-souled and gentle-mannered creature of God, whom it was a joy to meet, a privilege to listen to, a regret to part from, whom it is a sorrow beyond words to lose, and whom it will always be a precious inheritance to remember."

The tenth Report of the Trustees of the City Hospital is at hand; it includes, also, the report of Dr. Cowles, the Superintendent and Resident Physician, to part of which special attention is directed by the Trustees. We cannot help expressing at once a feeling of extreme satisfaction that this hospital has at last a sound plan of organization, and at its head a medical gentleman of enlarged and humane views, whose untiring energy has already made its mark in every department of the administration.

The great and increasing value of the City Hospital to the community is evident from the number of admissions (3,304) and of out-patients (9,272) of last year, as compared with 1,006 admissions and 1,143 out-patients in 1865. This value is still more evident on careful analysis of the diseases treated and the results. The number of accidental injuries alone was 804. The rate of mortality, ·082, is diminished from ·099 last year, the latter being due to the epidemic of small-pox. Of 3,197 patients discharged, 1,665 recovered and 1,061 were relieved. The net expense per week has been somewhat reduced.

The point, however, to which the Trustees specially refer, is in rela-

tion to the admission of patients under the new plan, by which the Superintendent is made admitting physician also. This would seem to be the natural and legitimate method, except for the extra labor it devolves on an officer already sufficiently burdened. Dr. Cowles examined, last year, 4,250 patients, rejecting 1,049 for causes which he carefully specifies. This in itself was no small task, considering our extended territory and the inability of many to present themselves at the hospital. The difficulty was increased by an endeavor to apply faithfully the somewhat contradictory rules and principles of admission laid down from time to time since the founding of the hospital.

First, it was found hard to eliminate the "victims of vice and intemperance," since these might also be victims of accident or disease; and, secondly, it was not easy to determine, in every case, the line between temporary necessity and pauperism. Dr. Cowles applied, in all these cases, the true touchstone, "Is it *humane* to reject this applicant?" The City Hospital, like the City Hospital for the Insane, was intended to be managed in the interests of *humanity*. It was meant to be a noble *charity* on the part of the city. It is well to keep this fact prominently in mind in matters of administration. "Victims of vice and intemperance" will continually present themselves with accidents, acute diseases, or exacerbations of chronic disease, requiring immediate temporary aid. It is not humane to reject these as a punishment or possible warning to others. While protecting itself in cases which can safely be referred to almshouses or other institutions, the hospital, in refusing aid to the former class, is like the Priest and the Levite, who did not even look to see if any Good Samaritan was following them.

The city, having given up the humane custom of caring for its own insane, may well afford to administer its remaining hospital liberally, not only with respect to the "vice and intemperance" restriction, but in dealing with all persons liable to become pauperized through sickness. No doubt many servants, laborers and mechanics, self supporting in health, would become paupers under the compulsion of sickness, except for this hospital. In this class of cases, too, the judgment of the admitting physician is all important. It is sometimes a nice medical point to decide whether the health of a sick person would be endangered by removal to a State almshouse, or rather by a rejection, which perhaps leaves the patient in the street. Into this question enters, not only the journey, but the moral effect of, and the probability of adequate treatment in, the almshouse. It is not by any means to be assumed that the patient's chances will be as good in one place as the other.

We have spoken of these perplexing questions at length, to show how important are the duties of the Superintendent in his capacity as

admitting physician, and to congratulate the hospital on an officer who will maintain those traditions of humane dealing likely to be lost sight of in the rapid increase of a floating population and the extension of our borders.

We are glad to see a prospect that the unhealthy basements beneath the present wings may become disused and given up wholly to purposes of ventilation, by the building of the contemplated new wards. Foreign cities are building hospitals on what they call the "American plan" of one-story, detached wards. The Presbyterian Hospital, of Philadelphia, building under the supervision of Dr. Mitchell, is to be entirely of this character; the Massachusetts General Hospital has similar wards. It is to be hoped that four stories of wounds and disease will no longer be superimposed, as at the City Hospital, but that a sufficient number of one-story wards will be at once erected to accommodate all proper applicants.

AN IMPROVED SPECULUM. By DANIEL T. NELSON, M.D., Chicago.—So many forms of uterine specula are now to be found in the stores, one may well hesitate to add to the number—already legion. But this variety demonstrates both the progress of gynæcology and the probable fact that a perfect speculum has not yet been made.

The one I now offer the profession is very well represented in the accompanying wood-cut.



As will be seen, it is more like Nott's latest than any other instrument. It differs from Nott's in having the lower blade longer and of better shape to receive the neck of the uterus, and in having handles for elevating and holding the upper blades.

The measurements of the instrument are as follows:—Lower blade, four and one half inches; extending beyond upper blades five eighths of an inch; length of instrument, including handles, seven and one half inches. The upper blades are much shorter than the lower, to correspond with the anatomy of the parts, as the posterior vaginal wall is longer than the anterior.

Some object to Nott's, and doubtless will to this instrument, that it is too short. But no physician has any difficulty in reaching the os uteri, except in rare cases, with the index finger, the available length of which rarely exceeds three and one half inches, and the lower blade of my instrument is four and one half inches in length and the upper blades nearly four inches. If the os is not exposed when the instrument is expanded, the difficulty is not in the length of the instrument, but in its position, or because it is not sufficiently expanded to raise the anterior wall of the vagina.

To introduce the instrument:—The patient reclines on the back upon the gynæcological chair, with the hip near the edge of the chair. Having ascertained the position of the os uteri, grasp the speculum with the right hand with the forefinger resting upon and projecting beyond the lower blade, and hold the handles vertical. Then carefully introduce the forefinger into the external organs and follow it with the instrument. When the instrument has passed beyond the external organs, it should be rotated so the handles shall lie horizontally; then, pushing the lower blade along the posterior wall

of the vagina, it will pass under the posterior labium of the os. Then, compressing and bearing downwards and backwards upon the handles, the anterior vaginal wall will be raised and the os exposed, when the handles can be fastened by the thumb-screw. The instrument is self-retaining when sufficiently expanded.

If the os is not at first exposed, the instrument, partially expanded, may be withdrawn a little so as to allow the lower blade to pass under the os; or the os may be raised by the forefinger inserted through the expanded instrument, by raising the anterior wall of the vagina, there being ample room for the forefinger to pass between the expanded upper blades. Or the os may be raised into the field of the instrument by a Simpson's sound, or like instrument, used as a lever. When the os is exposed, the uterus may be held in the field by a tenaculum, which can be fastened to a hook on the right upper blade.

My tenaculum is the same as Nott's, except that it has a handle like an applicator. When the tenaculum is fastened into the anterior labium of the os from below upward, it rarely is felt at all by the patient, and the little hæmorrhage which may occur will be of no disadvantage. The advantages claimed for this speculum are:—

1. Its length is such as to expose the uterus *in situ* by bringing it *nearer* the external organs, rather than pressing it deeper into the pelvis as do the longer instruments.

2. Thus giving a *better light*, which is often of great importance, especially when the physician is obliged to visit the patient at her home.

3. The instrument is so short, and the upper blades expand in such a manner as to readily allow of the rectifying of any malpositions through the expanded instrument, which is impossible in all the long instruments.

4. A large portion of the *vaginal walls* are exposed for examination and treatment, if needed, and by rotating the instrument the whole may be exposed.

5. While the blades are short, they are capable of expanding the vaginal walls more than any of the short instruments, and, indeed, more than most of the long ones.

6. The urethra and meatus are not pressed by the instrument, but lie between the upper blades, where they may be readily examined and treated if necessary.

I am under obligations to Mr. E. H. Sargent for the mechanical beauty and perfection of the instrument, and for the interest he has taken in its success.

The speculum may be seen at Sargent's 785 Wabash Avenue, corner of Sixteenth St., Chicago, and at Codman & Shurtleff's, Boston, Mass.—*Chicago Medical Examiner.*

Traumatic Facial Neuralgia.—C. P. C., æt. 55, married. Eight years ago the patient was struck in the face with a chair, it splitting the nose down to the right cheek. A month afterwards the wound was healed, leaving a cicatrice one and three-fourths inches in length. Two years later the patient felt a tingling in front of the ear and along the roots of the teeth of the upper jaw. There was a crawling pain and uneasiness, at times coming in flashes, as if many needles were pricking the cheek; it seemed to go from tooth to tooth. In the course of the five subsequent years, eleven sound teeth were extracted in hopes of relief. The pain then concentrated itself under the right ala of the nose, beneath the cicatricial tissue, upon which should any one press ever so slightly, a pain would start up all over the right side of the face. At last the pain extended over the entire side of the face up to the forehead. Momentary or continued pressure on the supra-orbital nerve, or on the eyeball, aggravated it so much that the tears would flow afterwards. As a general rule, whenever the patient swallowed either food or drink, the pain was agonizing; if he passed his tongue over the lips it felt like a hot coal burning him; if he pressed his lips together,

the pain, as he expressed it, was "tremendous." Even the act of speaking was attended with pain, coming on by fits and starts. At night the simple moving of the head, so that the pillow pressed on the cheek, would wake the patient up five or six times. On account of the continuous pain, morphia had been given subcutaneously to the amount of six grains every twenty-four hours. The interruption of sleep, the difficulty experienced in taking food, and the almost constant pain (there being about thirty spasms a minute), had reduced the patient to a very low condition. The various local and general means of treating neuralgia had been resorted to in this case without result. Finally, the patient resolved to try the chances of a surgical operation. It was decided to excise as large a portion as practicable of the infra-orbital nerve, and also, as there was great pain in the lower jaw and lip, excision of a part of the inferior dental nerve was thought necessary.

On the 25th of July, Dr. G. J. Vanvlack assisting, the patient being etherized, an incision, slightly concave towards the angle of the mouth, and measuring exactly two inches in length, was made on a line extending from a little below the coronoid process to the angle of the jaw. The fibres of the masseter muscle were exposed and separated in the line of the incision by means of a director. The periosteum was removed by means of a scraper as far as was necessary, in order to admit the crown of the trephine. Small retractors held the muscle and skin out of the way of the saw as it passed through the plate of bone—the disk being elevated and removed, the nerve was immediately exposed, and by means of a small blunt tenaculum was separated from its neighboring vessels; it was then cut with a pair of scissors. It had nothing abnormal in its external appearance. The disk of bone removed bore the imprint of the dental canal, running along at the side of the hole made by the centre pin of the trephine; one small, cutaneous vessel was tied. Leaving a dry sponge in the wound, a triangular flap of skin was then dissected up from under the right eye, the base of the flap being the infra-orbital ridge, while the apex pointed to the ala of the nose; three large branches (three-fourths of an inch in length) of the infra-orbital nerve were excised; eight small vessels were ligated, four silk sutures united the edges of the wound, leaving the ligatures to come out at the inferior angle. Three sutures were then placed in the lower wound, and two damp sponges were placed over each line of incision, and the whole side of the face was dressed with carbolized glycerine (1 to 10)—Lister's gauze and cotton wool; an injection of brandy was given per rectum during the operation; a subcutaneous injection of one-half grain of morphia was given directly afterwards. The pulse before the operation was 120, in the evening afterwards was 80; temperature 100; skin moist. The patient has had two naps in the afternoon. When he drinks, he fancies that the tumbler has a bit broken out of it; his wife has not seen him so comfortable for years. He himself says that he has had two slight flashes of pain. It is questionable whether this comes from the old trouble, or whether it is not a sensation similar to that which a person feels after a painful limb has been amputated; or again from the irritation of the proximal part of the nerve caused by the operation of excision.

July 26th.—Patient slept well all night; for many years he has not been able to drink more than a swallow at a time, now he drinks when he pleases, without pain; he feels more soreness on the left side of the jaw than on the operated side; has had a few tinges of pain in the upper lip; says he should not have noticed them if he had not had them before. Pulse, 82; temperature, 102.

July 27th.—Pulse, 72; temperature, 100. Patient has had considerable pain to-day, at times, when the bandage became displaced. The wounds look very well, that of the lower jaw especially; the face is but little swollen; has beef-tea and milk alternately every hour, also milk-punch twice during the day. Evening—pulse, 64; temperature, 100.

July 28th.—Pulse, 108; temparature, 100. Patient has had but one pain, early in the morning; at noon he had a cold feeling which soon passed away, leaving the skin very hot; the wound under the eye is suppurating at its

lower angle, but the other wound is dry, and the flesh seems to double in toward the line of incision, as if it were solidly united. Evening—pulse, 96 ; temperature, 102.

July 29th.—Pulse, 84 ; temperature, 101 ; has had no pain, whatever, to-day ; takes his food regularly ; drinks hot lemonade to help dissolve the mucus which collects in his mouth. Evening—pulse, 88 ; temperature, 102. Perspires freely after a nap.

July 30th.—There is an erysipelatous blush on the nose and right cheek, near the upper wound ; there is a slight swelling, but no pain ; the sutures were removed from both wounds, they had caused no apparent irritation; the lower jaw wound is united by primary union, and the rounding of the sides of the incision is quite perceptible.

July 31st.—Pulse, 76 ; temperature, 100.—The erysipelas has extended to the forehead and right ear; had a severe night sweat, followed by a chilly feeling; takes dilute sulphuric acid gtts. v. morning and night. The patient has not dared to put his tongue out until now, and is surprised to find that he can do so without pain.

Aug. 1st.—Pulse, 65 ; temperature, 97. Patient has had bottles to his sides and feet; has a tablespoonful of sherry every hour; beef-tea and boiled milk as usual; he feels comfortable but very weak; the left cheek and forehead are quite red ; when he drops off to sleep he wakes up confused and slightly delirious; the face and forehead are kept moistened with carbolized glycerine, and the wet bandages form a water poultice all around his head.

Aug. 2d.—Pulse, 76; temperature, 98. Face less swollen and red. Patient feels better to-day ; towards night he was taken with an uncontrollable twitching of the fingers of both hands. Pulse, 88 ; temperature, 103.

Aug. 3d.—Pulse, 65; temperature, 99. The redness is fading rapidly ; patient has passed a good night, has no pains, and thinks that he feels better to-day than he has for many years. Evening—pulse, 65 ; temperature, 100.

Aug. 4th.—Pulse, 65 ; temperature, 100. All the ligatures were taken away to-day ; no pain was felt after their removal ; there is no discharge from the wound; the redness is quite gone. Pulse, 65; temperature, 100.

Aug. 5th.—Patient sat on the lounge all day, and is feeling quite well; the nose becomes red at intervals, but is not swollen; appetite excellent; bowels regular since the operation; he thinks that he has eaten more since he was sick than during the past year.

On the 10th of August the morphine was diminished to three grains daily, without inconvenience to the patient.

On the 15th the patient walked out of doors.

Aug. 22d.—He continues to take exercise daily; has no pain whatever, no paralysis of the face; eats well of what he pleases, passes excellent nights, and is on the way to speedy recovery.

The operation of trephining the inferior maxilla for excision of the dental nerve, was first performed in July, 1847, by Dr. J. C. Warren, of Boston. He "removed a portion of the inferior dental nerve by trephining the body of the jaw in a lady fifty-nine years old, and thus afforded her relief from an excruciating neuralgia of three years' standing." (Surgical Observations with Cases, by J. M. Warren, M.D., p. 477.)

The operation is known as the Warren method ; its object is to excise the inferior dental nerve just after it has entered the foramen, and thus to avoid injuring the gustatory nerve. It is important to excise as much of the nerve as possible, since we know that simple nerve section is usually followed by a reunion of the divided ends; this reunion taking place, according to Paget, soon after division. It was observed by Dr. Waller that, after the excision of a portion of a nerve, its distal part atrophies and degenerates, the process taking much longer time in the human subject than in the lower animals.—Dr. C. B. BRIGHAM in the *Western Lancet.*

Correspondence.

Letter from Vienna.

Vienna, Austria, August 12, 1874.

Messrs. Editors,—I arrived here Sunday, the 9th inst., and visited, today, the K. K. public Hospital. In the following, I give you a short description of it.

This hospital was opened, as such, on Monday, August 16, 1784, about ninety years ago, by Emperor Joseph II. The buildings belonging to it were originally the great Vienna poor-house, founded by Emperor Leopold I., 1693, and finished in 1769. Emperor Francis I. made an addition to the oldest buildings, 1832 to 1834, and, in 1862, there was added the building for pathological anatomy.

The hospital contains 100 wards (59 for men and 41 for women), with 2000 beds, which are distributed as follows, viz.:—

For internal diseases (strictly medical), 407 men and 280 women,	687 beds.
For external (chirurgical cases), 314 men and 205 women,	519 "
For diseases of the eyes, 85 men and 76 women,	161 "
For diseases of the ears, 11 men and 8 women,	19 "
For venereal diseases, 222 men and 99 women,	321 "
For cutaneous diseases, 89 men and 49 women,	138 "
Reserve for variolous diseases, 14 men and 12 women,	26 "
Reserve for cholera cases, 10 men and 8 women,	18 "
For psychiatric cases, 39 men and 21 women,	60 "
For paying patients, 17 men and 14 women,	31 "
For students, 20 men,	20 "
1228 men and 772 women,	2000 "

The different buildings in which these wards are situated are divided by large yards, ornamented with flowers, bushes, trees and fountains, which is made necessary, as the part of the city where the hospital is situated is very densely built, and so the air is kept pure and fresh, and the patients have plenty of air to breathe.

Besides this hospital, there are two other public hospitals in the city for adults and one for infants and children up to the fourth year, and children above that age are taken care of in one of the others, together with the adult patients.

The following are the three other public hospitals, viz.:—1. The K. K. Bezirks-Krankenhaus Wirden, with 600 beds. 2. The Rudolph Stiftung, with 860 beds. 3. The St. Ann Hospital for Children. These three hospitals are under the direction of the K. K. public Hospital.

In this hospital, instruction is given in the different branches of medicine. During the summer term of 1873, there lectured in this hospital twenty professors, twenty-five privat-docenten and sixteen assistants. At the present time, most all the professors and docenten are absent from the city, as the summer term closes by the end of July and the winter term commences by the first of October. M.

About the Public Schools.

September 11, 1874.

Messrs. Editors,—Every train from the north, for a week past, has been bringing back the boys and girls to city schools. Many of them would be better off for an extra vacation. None of them would lose in knowledge if they were to be away another month. It is all very well to have the school opened for those who have not the means to keep in the country. But it is not the fear of losing information that hurries them back. It is the fear of losing double promotion. What is this double promotion that they are so

anxious to have? If some of the class are entitled to be put twice as far onward as the others, what have they been kept back for during the last year? It is a ruse to cheat the children into overwork. We have seen enough of the driving process in our schools. We have seen enough of the law-breaking in them, and of the shams for making people see what does not exist. It is time that a change was made.

The law says that no girl shall have lessons to get out of school. But the girl who does not wish to keep behind her class must study out of school; and not unfrequently do we find a girl broken down by working over her books till midnight. The law says that no boy shall have lessons to study out of school which will oblige a boy of ordinary capacity to study more than an hour. Every parent knows that they do have such lessons, and, in some cases, when complaint has been made upon this point, the answer has been in the form of an insult—"Is not your boy of ordinary capacity?" If the question concerning too long lessons be asked in school, the answer is sought for from a boy at the head of his class, who learns easily, and who is picked out for the purpose as a boy of ordinary capacity.

One of the shams, and a common one, is in estimating the percentage of attendance. This, as physicians, we are constantly having our attention called to. Last year, the Milk Street School had for average attendance 99·980 per cent. The State Street School had 99·985 per cent. This, of course, is the best school in the estimation of the public. How could it be? Why, Fanny Jones's mother was coaxed into letting her sick daughter report herself one afternoon, on condition of her being sent home at once, before she was to take her medicine; and the next morning her name was erased from the list of scholars, to be again entered in forty-eight hours more. If Tommy Tucker had reported in the same way, at the Milk Street School, there would have been a tie.

PARENS, M.D.

Medical Miscellany.

DR. C. J. B. WILLIAMS has been appointed Physician Extraordinary to Queen Victoria. A well-merited honor, say the English medical journals.

THE APPOINTMENT of Dr. Charles F. Folsom as Secretary of the State Board of Health is officially announced. Communications relating to the business of the Board should be addressed to him at No. 6, Park Square.

HOCK-DRINKERS will be sorry to learn that their favorite wine is now systematically and extensively adulterated in Germany. The Cologne Chamber of Commerce, in its yearly report just issued, does not mince the matter, but states that the "rectification" assumes alarming proportions among nearly all the vineyard proprietors of the Moselle, and among most of the makers in the Palatinate. It must be painful to a good many people in this country to learn that several of the Rhine-wine cellars contain more of the supposed 1873 vintage than the entire vineyards actually produced.—*Lancet.*

NELATON'S METHOD OF RESUSCITATION FROM CHLOROFORM NARCOSIS.—This method of treatment is based upon the hypothesis that death is due to cerebral anæmia, and consists in inverting the body, in order that by force of gravity the blood may be restored to the brain, while the respiration and circulation are renewed. Several striking cases of apparent death from chloroform narcosis have recently been reported in the *British Medical Journal*, in which resuscitation was accomplished by long-sustained inversion. The fact that no death from chloroform has been known to occur during labor is explained in this way: that, in active labor, there can be no cerebral anæmia, inasmuch as every pain throws the blood violently to the head, producing congestion of the cerebral bloodvessels, thereby counteracting the tendency of the chloroform to produce a contrary condition.

Novel Dressing for Wounds, and for stopping Bleeding.—M. Vigier recommends a paste made by mixing two parts of modelling clay with one of glycerine, and so making an application which will be found convenient as a dressing and preservative at the same time.—*Dublin Medical Press and Circular.*

"Do you ever analyze blood?" said a cadaverous looking individual to me one day, at my office; "I can do it myself," he added. "I once took a scientific education in a high school, but I have no retort!" Thinking he meant dried blood, which is valuable for clarifying and other purposes, according to the percentage of soluble albumen it contains, I said "Yes." You may judge of my surprise when he informed me that, having been an invalid for twenty years, and trying in vain physicians of the various schools without relief, he was at last persuaded that his blood was deficient in some normal ingredient, or that there was lurking in it some subtle poison which the combined effects of even "sarsaparilla and iodide of potassium" and other "spring medicines," which he had absorbed in immense quantities, had failed to remove. He desired to have his blood analyzed to ascertain the nature of the disease, and in the most innocent manner possible inquired how much blood it would take to make the experiment. This story is strictly true as to its main facts.—*The Laboratory.*

Iced Clysters in Dysentery.—Dr. Wenzel, having had occasion to treat a great number of cases of dysentery, has found the best remedy to consist in the injection of ice-water into the rectum. It is an inoffensive, economical treatment, and gives extremely satisfactory results. The first case the doctor treated in this manner was one of severe dysentery. There were intense fever, abdominal pains, excruciating tenesmus, and profuse sanguineous evacuations. To check the hæmorrhage, injections of ice-water were ordered every two hours, which not only caused the sanguineous evacuations to cease, but also removed the tenesmus, enteric pains and fever. The beneficial effect of these injections was so evident that the patient urgently demanded their repetition whenever the pains threatened to reappear. Dr. Wenzel now considers this treatment more satisfactory than any other in acute cases, although in chronic cases it can only be expected to afford a temporary and palliative effect.—*L'Independente*, April, 1874; *New York Medical Journal.*

Died.—September 4th, Daniel Little, M.D., of Goffstown Centre, N. H., aged 76.

Mortality in Massachusetts.—*Deaths in sixteen Cities and towns for the week ending September 5*, 1874.

Boston, 183; Worcester, 25; Lowell, 37; Milford, 3; Cambridge, 23; Salem, 13; Lawrence, 28; Springfield, 15; Lynn, 20; Gloucester, 3; Fitchburg, 6; Newburyport, 4; Somerville, 13; Fall River, 34; Haverhill, 7 Holyoke, 15. Total, 429.

Prevalent Diseases.—Cholera infantum, 106; consumption, 66; diarrhœa and dysentery, 25; typhoid fever, 15.

Lowell reports four deaths from diphtheria.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

Deaths in Boston for the week ending Saturday, Sept. 12, 195. Males, 105; females, 90. Accident, 8; aneurism, 1; apoplexy, 2; asthma, 1; abscess of liver, 1; inflammation of the bowels, 5; bronchitis, 1; inflammation of the brain, 2; disease of the brain, 2; cyanosis, 1; cancer, 3; cholera infantum, 53; cholera morbus, 4; consumption, 27; convulsions, 4; croup, 1; debility, 5; diarrhœa, 13; dropsy, 1; dropsy of the brain, 3; dysentery, 8; typhoid fever, 2; disease of the heart, 8; hepatic malformation, 1; intemperance, 1; disease of the kidneys, 3; congestion of the lungs, 3; inflammation of the lungs, 3; marasmus, 7; measles, 1; old age, 4; paralysis, 1; premature birth, 3; puerperal disease, 1; purpura, 1; rheumatism, 1; disease of the spine, 1; spina bifida, 1; teething, 2; tetanus, 1; whooping cough, 4.

Under 5 years of age, 109; between 5 and 20 years, 6; between 20 and 40 years, 31; between 40 and 60 years, 26; over 60 years, 23. Born in the United States, 142; Ireland, 38; other places, 15.

THE

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Original Communications.

PAPILLOMATOUS DEGENERATION OF THE LEFT OVARY; REMOVAL; TRANSFUSION; DEATH.

By H. O. MARCY, M.D., of Cambridge.

MRS. M., æt. 29. Finely developed woman, of a healthy family. Married three years; one miscarriage, two years ago. Menses regular, but lately scanty.

First seen Nov. 26, 1873. Well until previous May. Suffered pain in the left side last September, and since, at times, dragging weight in pelvic region. Not seriously ill at any time, but, for the last few weeks, has noticed an increasing fulness of the abdomen, with a considerable loss of appetite, flesh and strength. The abdomen contained an oval, symmetrical body, nearly in median line, reaching a little above the umbilicus, about as large as the gravid uterus at the sixth month. Patient supposed herself pregnant.

Next seen Dec. 14th. Mrs. M. had, two weeks after last visit, Dec. 11th, indulged in dancing, and, suddenly complaining of abdominal pain, fell insensible to the floor. Since, quite ill; much of time in bed. Now, the abdomen is greatly enlarged, measuring 37½ inches at umbilicus, and is distinctly fluctuating; changes somewhat with position. Uterus measures two and one half inches in depth, and is retroverted laterally to the left, but movable. Other organs healthy. Diagnosis, ovarian cyst.

Dec. 22d.—Patient, who has suffered extremely during the past week, is seen by Dr. Cheever, in consultation. Decided to relieve by tapping. The 24th, Dr. Cheever removed fourteen pints of a yellowish-green, clear fluid. Specific gravity, 1020; coagulated solid with nitric acid; slight flocculent sediment, containing blood disks, pus cells, and a few delicate stellate crystals.

The fluid ceased to flow, although a considerable quantity, with a firm, resisting mass, remained in the abdominal cavity. Diagnosis, doubtful; thought by Dr. Cheever to be probably subacute peritonitis, with a large deposit of lymph.

Patient slowly rallied after the operation; absorption of the free fluid took place, leaving an irregular, indistinctly fluctuating mass, filling the pelvic cavity and extending laterally to the crest of the left ilium, and reaching, on median line, half way to umbilicus.

The uterus was now immovable, and the contents of the pelvic cavity fixed and inelastic.

A gradual enlargement took place during the last of January and in February, until the tumor extended from the right ilium laterally, above the umbilicus, to the left renal region. The left side was much

distended and perfectly fluctuating, with a thin wall; and especially, in the light of the previous history, seemed in imminent danger of rupture.

The exploring needle showed the contents of the cyst to be a thin purulent fluid. To the right, in Douglass's fossa, was a fluctuating point, which, aided by Dr. Hildreth, I punctured, expecting to drain the large sac from the vagina. Two or three ounces of clear, straw-colored, albuminous fluid escaped from a sac which admitted sound two inches. We enlarged this opening, to admit the finger.

The tumor steadily increased, and the condition of the patient became one to cause much anxiety.

March 4th, I carried a long, slightly curved trocar through the previous opening obliquely towards the median line, four inches above the roof of the vagina, into the large sac, and drew off forty ounces of pus, with great relief to the patient, although a firm, fixed mass remained, nearly filling the pelvic cavity. A sound was occasionally passed through the vaginal opening, and drainage in small amount continued afterward. Soon after this, red villous masses escaped from the opening, which Dr. Fitz pronounced papilloma.

The diagnosis was at last undoubted. Primarily an ovarian cyst, which ruptured, allowing the escape of its fluid contents into the abdominal cavity; subacute peritonitis followed, and now, a multilocular cyst, more or less filled with hypertrophic villous masses, closely bound by adhesions to the pelvic cavity.

During March and April, the patient improved very much in her general health, although the tumor was slowly enlarging.

Mrs. M. determined upon the attempt of removal, after full explanation of her unfavorable condition and the great gravity of surgical interference.

May 7th.—The operation was performed by Dr. Cheever, assisted by Drs. Underwood, Hildreth and myself. The cyst was firmly adherent anteriorly, and, attempting its separation, the thick, friable walls ruptured, allowing the escape of a portion of its fluid contents into the abdominal cavity. Extensive adhesions to the omentum, intestines and parietal walls were carefully separated, and required several ligatures. It was necessary to carry the incision two inches above the umbilicus. The pedicle was broad and thick, was clamped, but too short to be brought out externally, and was secured by a double ligature and left in the pelvic cavity. A large-sized Sims's drainage tube was carried through the vaginal opening and lower angle of the wound.

The cyst contained about a quart of purulent fluid and several large papillomatous growths, which were easily broken down and proved a source of very troublesome hæmorrhage. The right ovary contained a cyst of the size of an English walnut, which was easily enucleated.

Owing to the great loss of blood and the tedious dissection of the adhesions, the patient's condition was one to cause anxiety, and the latter stages of the operation were hastened as much as possible. The patient rallied slowly and imperfectly from her almost moribund condition.

There was slight nausea, no vomiting, no bleeding, no pain. Took beef-tea and brandy, in small doses, frequently. Enema of the same every two hours. Evening temperature, 99°. Pulse 112. Extremities warm. Urine freely secreted. Mind clear. Slept some.

May 8th.—Had a comfortable night. A watery fluid, mixed with

blood, flows from the tube. The abdominal cavity is washed every six hours, with a weak solution of carbolic acid, until it flows clear.

Noon.—Temperature 100°, and pulse 120. Tube obstructed, and the contents, which were washed out, were fœtid. The microscope shows monads, bacteria, &c., in abundance.

May 9th, A.M.—Slept part of night. No nausea; no pain; abdomen not tympanitic. Temperature 102°; pulse 140, weak. Extremities cold. Rapidly sinking. Decided to try transfusion, Aveling's instrument being used. Dr. Cheever easily introduced canula into vein of patient, but was less fortunate with the husband. After a prolonged trial, the vein having been opened as in ordinary bleeding, introduction of the canula proved so troublesome that the collected blood was defibrinated, strained and transfused to the amount of about three ounces, with no appreciable change on the part of the patient.

P. M.—A second trial was made by myself; a brother, with large veins, volunteering for the purpose. Profiting by the experience of the morning, the vein was dissected, and a director placed beneath before being opened. Great care was used in first filling bulb with warm water, working steadily and rapidly, with plenty of assistance. Three or four ounces were introduced without trouble, when, upon gentle pressure of the bulb, the blood refused to flow. The instrument, removed from the canula, was at once placed in warm water, and yet the bulb was so firmly filled with a clot that it was removed with the greatest difficulty. The transfusion was again continued, without further trouble, until five or six ounces of blood had been introduced. At first the patient, whose intellect was perfectly clear, thought she felt a little stronger, but, towards the close of the operation, complained of weariness. It is doubtful if the heart's action improved even temporarily, and within a few minutes respiration faltered and death supervened suddenly.

I have been the more minute in the above description, because of the interest at present felt in the operation of transfusion, and the limited experience of its uses by the profession. The use of the Aveling instrument is described as being so simple, easy and free from danger that an amateur might easily make use of the same under the most unfavorable circumstances. Admitting the seeming simplicity of the instrument, I apprehend that in its present form at least, however familiar by experience, its use cannot be looked upon otherwise than as a somewhat formidable operation. The difficulty of the proper insertion of the canulæ, the liability of the introduction of air—perhaps not so grave a danger as formerly apprehended, as I have once seen air-bubbles introduced with the current without harm—and the danger of clots carried into the circulation, are obstacles of no slight magnitude.

The *post-mortem* appearances were not especially instructive. A portion of the parietal walls was already gangrenous and the wound highly fœtid.

Cause of Death.—The patient did not fairly rally from the loss of blood and shock of the operation. Widely denuded portions of the peritoneal surfaces offered ready means for the absorption of the pelvic fluids, which, although carefully removed by drainage and washing, early became in a high degree septic.

In the small cyst enucleated from the right ovary, the hypertrophic

elongation of the papillæ given off from the cyst wall was of the most delicate character, while the cyst wall itself was extremely thin and fluid contents clear. The walls of the large cyst were extremely thick, friable and easily broken, and projecting therefrom were villous masses, from the size of the fist downwards, and of an intense red color. These presented, at base, a slight frame-work of connective tissue, were arborescent, and covered by epithelium, presenting an appearance, under the microscope, not very unlike the villi of the chorion. This form of villi undoubtedly takes its origin from the epithelial lining of the hypertrophied follicle, and in this respect bears a close analogy to epithelioma, as seen in other parts of the body. That they are usually of a benign character, i. e., do not return after removal, is shown by clinical as well as histological evidence. In exceptional cases, they are probably malignant.

Solid ovarian tumors are occasionally met with which have an origin similar to the above, i. e., the cyst ruptures, the papillomatous masses increase, causing an eversion of the sac, the walls of which form the base of a proliferatiug tumor, more commonly called cauliflower cancer.

REMARKS ON THE INVASION OF THE EXTERNAL AUDITORY MEATUS BY INSECTS, WITH REPORT OF SEVERAL CASES.

By Samuel Theobald, M.D.

Ophthalmic and Aural Surgeon to the Baltimore Charity Eye and Ear Dispensary.

The invasion of the external auditory meatus by insects is, comparatively speaking, a rare occurrence. In the healthy condition of the parts, owing to the presence of the cerumen, which coats the walls of the outer third of the canal, and is extremely offensive to their tastes, it seldom happens that they intentionally pass inwards beyond this protecting zone; while the conformation of the external ear, the smallness of the opening itself, and the lateral position of the organ, render an accidental entrance scarcely more common. When, however, through disease or filth, the normal condition is changed, it may so happen that, not only are they no longer repelled by the secretions of the cerumenous glands, but that they may be, according to their habits, even attracted by the altered character of the contents of the ear.

A striking illustration of this has recently come under my observation, and seems not unworthy of mention. A lad, nine years of age, was brought to my office, in December last, suffering with otorrhœa. Both ears were similarly affected; and the discharge, which was very offensive, had commenced some two years before, without assignable cause. The meatus auditorius being filled with semi-fluid pus, the syringe was resorted to, in order that the deeper structures of the ear might be brought to view, and their condition noted. To my surprise, the stream of water not only brought out of the ear, first syringed, a considerable quantity of thick pus, but, also, the bodies of two flies (common house-flies). They were thoroughly macerated and softened, and presented the appearance of having been for a long time subject to the action of the fluid by which they were surrounded.

The other ear was next syringed, and if my first discovery had surprised me, I had certainly occasion to be astonished when exactly the same condition of things revealed itself in this one. Two more flies, presenting the same macerated appearance, came out of the second ear, together with the pus in which they had been embedded.

The patient had an indistinct recollection of a fly having gotten into his ear during the previous summer, and it is most probable that at that time, the flies, whose bodies I had discovered, being attracted by the odor of the discharge, had entered the auditory canals, and, being unable to extricate themselves, had perished as a punishment for their greed. The ears not having been syringed, and the discharge not being copious, they had remained undisturbed until discovered as above related. The mother did not think it at all likely that he would have put the flies into his ears himself, as he was "not a mischievous boy." Large perforations were discovered in both tympanal membranes, which accounted for the long continued otorrhœa.

In writing the account of the above case, I am reminded of a somewhat similar one which I have heard Prof. Politzer describe at his clinic in Vienna. Upon one occasion he syringed from a patient's ear, together with a quantity of inspissated cerumen, the bodies of three different insects; if I mistake not they were those of a flea, a louse, and a bed-bug.

My grandfather, Prof. N. R. Smith, has, during his extended experience, met with several remarkable instances of the entrance of insects into the auditory meatus. In one instance he encountered a case very much like that described by Politzer, except that but two insects instead of three were discovered. He relates also another, which occurred in the practice of his father, the late Prof. Nathan Smith, of Yale College, in which a fly having blown in a man's ear, during sleep, the maggots, presently coming in contact with the membrana tympani, created such an uproar, and sensations so unbearable, as almost to drive the man frantic before relief could be obtained. In another case, a honey-bee flew suddenly into the ear of a man who was quietly walking in his garden. At once the man was thrown into such a state of frenzy and excitement that he was unable for some moments to explain what had happened, and those who beheld his actions concluded that he had suddenly gone mad.

Sir William Wilde says in his book upon diseases of the ear: "I remember being out shooting on a plantation many years ago with a friend, who, suddenly exclaiming, 'Oh! an earwig,' and throwing aside his gun, fell on the ground, making the most piteous moans, and rolling about in convulsive agony." Sir William relates that, having procured some water from a neighboring ditch, he poured it into the meatus, and, watching for the result, soon saw "a little animal, well known among anglers as the hawthorn fly," creep out, and the gentleman was at once relieved.

Some months since, a patient came to consult me, saying that during the previous night, while she was asleep, a bug had crawled into her ear and had caused her great suffering, which was finally relieved by pouring into the ear laudanum and glycerine. I discovered in the meatus a cockroach, which had penetrated to the inner extremity of the canal before the remedies used had succeeded in destroying its life. After removing it, the membrane and the walls of the meatus in

proximity to it were found to be highly congested, but no further trouble resulted.

The movements of the wings and feet of insects in contact with the drum membrane produce most distressing and painful sensations, as the descriptions of the cases I have mentioned show, and it becomes, therefore, a matter of the first importance, when living insects have entered the meatus, to be able, as quickly as possible, to kill them; after which they may be removed at leisure, and with greater ease, either by syringing or by the forceps if necessary. This may be best accomplished by pouring into the ear a small quantity of any mild oil, or of melted lard; although the most popular remedy for this purpose is human urine. With this latter remedy I have had no experience, but it certainly possesses the advantage of being always available, and I doubt not would be quite efficacious.

Translation.

ON SPRINGING* FINGERS.

By Dr. Arthur Menzel, of Triest.

From the Centralblatt für Chirurgie, August 29, 1874.

Notha and Nélaton have described a peculiar, partial stiffness of the finger which, though in other respects normal, resists for some time all efforts to flex it, and then suddenly shuts up, like a pocket knife, with a painful snap. Extension occurs in the same way. Nélaton thought he had discovered, in the flexor tendon, a small, round, movable body, which he considered the cause of the trouble. He holds that, as soon as the finger begins to bend, this body meets with resistance from the fibrous bands which strengthen the sheath of the tendon, but that on continuance of the effort it squeezes itself under these bands and springs out on the other side of them. W. Busch, however, has examined two cases without discovering anything unusual, either in the joint or in the sheath of the tendon. . . . . .

I shall allow myself to add to the few cases that have been observed a new one, which, partly by itself and partly by the experiments it induced me to undertake, may lead to the explanation of this remarkable phenomenon. Marie Froman, embroiderer, aged 42, of Triest, suffered, during the past winter, from rheumatic pains in the lower extremities. Two months ago (May 16, 1874), while at work, she suddenly felt so sharp a pain in the region of the metacarpo-phalangeal joint of the right thumb that she cried out. She thought that she had run a needle or a thorn into the flesh, but, after a careful examination, entirely dimissed the idea. From that time, the pain never entirely left her, by day or night. After a fortnight, she first noticed the springing of the thumb, and, at times, was unable to bend it.

When I examined the patient (July 16th), I found the following condition: resistance is felt when the last phalanx of the thumb is bent to an angle of 150°; if the flexion is continued with a moderately increased force, the last phalanx suddenly flies, with a slight snap, to an

* This adjective hardly corresponds to "schnellend" in the original, but the meaning is shown in the first sentence.

angle of 90° (with the first phalanx). It springs in the same way when the attempt is made to bring it from the flexed to the extended position. The occurrence is the same whether the motion is active or passive.

The patient, as well as those that examined her, referred the springing and the snapping to the joint between the phalanges, but a very thorough examination showed nothing abnormal there. There is no swelling, and entire freedom from pain, even during hard pressure. On the contrary, there is a very tender point during pressure on the flexor tendon opposite the metacarpo-phalangeal joint, and at the same place on the ulnar side of the tendon there is a small, elongated, hard and immovable body, which appears to be the origin of the pain. Precisely the same prominence is found in a corresponding portion on the other thumb, only in the left hand it is entirely painless.

The case is remarkable on this account, that the springing apparently takes place in the joint between the phalanges, while the great pain on the palmar surface of the metacarpo-phalangeal joint makes it highly probable that the cause of this springing lies in some affection of the tendon and its sheath.

With my assistant, Dr. Sbisa, I undertook some experiments on the cadaver to make artificially springing fingers. We first proposed to ourselves the question, is a circumscribed thickening of the tendon—a tumor—alone sufficient to cause this phenomenon? . . . . . The tendon of the deep flexor was laid bare to a small extent opposite the second phalanx and tightly surrounded by from two to four turns of a thread, which thus formed a small circumscribed tumor of the tendon. The tendon was then returned to its sheath, and movements made, sometimes by simply bending the finger, sometimes by drawing on the corresponding tendon, which was laid bare at the wrist. The movements were less smooth than usual, but had no springing character. This appeared only when, with a tumor of the tendon, the resistance of the sheath was either decidedly increased or diminished.

In order to increase the resistance, we made an artificial contraction of the sheath by firmly tying the sheath, after it had been opened as before, together with the enclosed tendon. The movement was smooth till the tumor of the tendon reached the contraction of the sheath, and then it stopped at once; but, on increasing the strain, the finger sprang with a snap into the intended position. The feeling was precisely as if the trouble was situated in one of the joints of the finger. . . . . On the other hand, the springing can be easily caused by taking away the resistance of the sheath by removing a small piece of it. . . . . .

Inasmuch as Nélaton's cases seemed to imply that this phenomenon was due to bodies in the sheaths of the tendons, ... I introduced, through very small openings, foreign bodies, such as millet and hemp seeds and grains of rice, and pushed them with a probe some way into the sheath. These bodies usually slipped to the sides of the tendon, but as a rule moved with it very slightly or not at all. Springing never occurred.

The following conclusions appear to me justified by what has been said:—

1. The springing must always be due to an affection of the sheath; the examiner has, however, always the impression that it occurs in a joint of a finger.

2. Neither a circumscribed tumor of the tendon without contraction of the sheath, nor such a contraction without a tumor, is sufficient. Both are necessary.

3. The springing can occur as well when, besides the presence of a tumor in the tendon, there is a corresponding rent in the sheath.

4. Free bodies do not cause springing, even when a contraction of the sheath coëxists. . . . . The tumors and contraction are probably products of inflammation.

As to the case reported above, I should add that the springing disappeared in a few days after tincture of iodine and warm baths; but the motions of the thumb continued to be very painful, and work is still out of the question.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By R. T. Edes, M.D.

(Concluded from page 279.)

Atropia and Calabar Bean.

M. Martin-Damourette publishes in the *Journal de Thérapeutique* a series of articles with experiments upon eserine and atropia as mutual antidotes. As the question is one of but exceedingly limited practical value, and as the theoretical deductions are, as yet, far from clear, we present only a few of the results.

The action of small doses of atropia as an antidote to poisonous doses of eserine is incontestably proved as to animals, but should not be tried upon man except with great care. (The experiments of M. Martin-Damourette were made upon birds, cats and frogs. Those of Prof. Fraser, who found a wide range of antagonism between the two poisons, were made upon rabbits, which bear doses of atropia relatively and absolutely enormous as compared to those which are poisonous to man.)

The coinciding effects, either convulsing or paralyzing, of the two substances, given in larger or smaller, but non-poisonous doses, may be added to each other and cause death.

The neuroparalysis, which each of them produces, reduced to therapeutic proportions by the moderation of the dose, would authorize their employment in combination in the treatment of certain convulsive neuroses, and in particular of tetanus. It may be added, to give the practical question its true bearing, that one, at present, almost never has to treat a case of poisoning by calabar bean, either accidental or otherwise, while it is not rare to see poisoning by belladonna or atropia. (Less common with us than in Europe, where the belladonna berries are eaten by children.)

Unfortunately, both the experiments of Martin-Damourette and those of Fraser show that the preparations of calabar bean cannot be used to counteract poisoning by belladonna, since doses of atropia, inferior by more than half to the fatal one, are rendered fatal by the administration of non-poisonous doses of eserine, this taking place by the addition of poisonous properties of the two substances acting in the same direction.

MM. Rossbach and Frölich (*Journal de Thérapeutique*, No. 9, p. 357) have also experimented upon the antagonism of atropia and eserine. They find that in very minute doses, atropia contracts the pupil, while in very large ones, eserine dilates it, so that as regards this symptom, the two substances antagonize each other only in the middle range of their action, while they coincide at the extremes.

As regards the heart, in some animals, atropia in very small doses diminishes the number and increases the vigor of the pulsations. Larger doses paralyze it. Small doses of eserine produce but little effect upon the heart of the frog, but larger ones produce a complete paralysis.

MM. Rossbach and Frölich therefore have but a limited belief in the antagonism of the two drugs.

E. Harnack (*Archiv für Experimentelle Pathologie und Pharmakologie*, 1874, p. 307) criticizes, with apparent justice, the above experiments as not being conducted with the necessary precautions to justify conclusions so different from those reached by many previous investigators. He then adds a series of his own, which go to show that the slowing of the heart, asserted by these authors to take place with small doses of atropia, does not exist, and, when occurring in their experiments, was due to other causes than the specific action of the drug.

Digitalis.

Dr. Görz (*Archiv für Experimentelle Pathologie und Pharmakologie*, 1874, p. 123) has examined, chemically and physiologically, three substances obtained by Nativelle from digitalis. These are digitalin and digitin, crystallizable and soluble in alcohol, and digitalein, amorphous and soluble in water. Digitalin and digitalein are both active, digitin inert. Görz was able to obtain from the specimen of digitalis at his disposal only an exceedingly small quantity of digitalin, but a considerable amount of digitalein, and supposes that the dried leaves frequently contain but very little of the crystallizable principle. It seems that these facts may account for the uncertainty of the action of tincture of digitalis, which may or may not contain crystallizable digitalin, while the more reliable watery infusion is sure to contain amorphous digitalein, which is equally efficacious. Nativelle considers digitalein to be the active constituent of the officinal (not crystallized) so called digitalin.

It has generally been supposed that the diuretic effect of digitalis depends not on any specific diuretic action of the drug, but entirely upon its ability to increase the blood tension in the arterial system in general.

Drs. Brunton and Power (*Centralblatt*, July 4, 1874, p. 497), however, conclude from their experiments that this is not the case, since the secretion of urine diminishes, or even ceases, when the blood pressure reaches its highest point after the injection of digitalin, and reappears as the pressure begins to fall. They suppose that digitalis contracts the vessels of the system in general, and those of the kidney in particular, and that the latter are probably the first to relax and dilate, thus allowing a local increase of pressure in the malpighian bodies as the general pressure diminishes. They admit also the possibility of a direct action upon the secreting structure of the gland.

Jaborandi.

M. Coutinho, of Rio Janeiro, describes in the *Journal de Thérapeutique*, No. 5, p. 161, the effects of a Brazilian plant, known to the natives as jaborandi. It appears to be by far the most powerful diaphoretic known, not depending for its powers, like most other diaphoretics, in great part upon the heat of the menstruum. It may be taken in cold infusion. The salivary secretion is also greatly increased, so that the patient is for a time almost unable to speak, so rapidly does his mouth fill with fluid. The bronchial secretion is also augmented.

M. Gubler, the editor of the periodical just quoted, has confirmed the observations of Dr. Coutinho. He has several times collected a litre (about a quart) or more of saliva in less than two hours. One of his pupils, who perspires with great difficulty, obtained a sweat by taking, while sitting up, a cup of the infusion scarcely warm. He says that the plant brought by Dr. Coutinho is the first undoubted example of a diaphoretic truly worthy of the name, that is to say, a drug having the power directly to provoke the secretion of the sweat by a special stimulation of the sudoriparous apparatus.

The specimens brought by Dr. Coutinho, having no flowers, could not easily be identified; but, from a comparison with a collection of Brazilian plants, it appears that jaborandi is identical with a species of the family rutaceæ, the pilocarpus pinnatus, growing in the province of St. Paul in Brazil.

Rabuteau *(L'Union Médicale*, 1874, No. 45, and *Centralblatt*, 1874, p. 528) has still further confirmed, by experiments upon himself, the statements of Coutinho.

Apomorphia.

E. Harnack *(Archiv für Experimentelle Pathologie und Pharmakologie*, p. 254) concludes from his experiments on various animals, that although the name of emetic, as applied to apomorphia, is practically a suitable one, yet it is theoretically incorrect, for the emetic action is only one link in the chain of its effects, although practically the most important, and in animals which vomit easily, the most striking.

The action of apomorphia is chiefly limited to the nervous centres, those of respiration, voluntary motion, sensation, and also of vomiting. These are excited by small doses, and paralyzed by very large ones. Muscular relaxation, either from a paralyzing influence upon the muscle itself or upon the nervous centres, is also an effect. The former condition (direct paralysis of the muscles) may be observed in the frog.

The heart is paralyzed in the frog.

So far as the therapeutic application of apomorphia is concerned, the collapse frequently observed in children after its use is the only point demanding attention. Without recommending its disuse with children, the author says that the dose, instead of the usual $\frac{1}{32}$ or $\frac{1}{22}$, should be only from $\frac{1}{130}$ to the $\frac{1}{65}$ of a grain, which, he says, will not fail of its effect.

M. Carville (*Journal de Thérapeutique*, No. 14, 1874, p. 552) recommends the employment of apomorphia in cases of poisoning. The subcutaneous injection of one centigramme ($\frac{1}{6}$ grain) produces powerful emetic effects. The solution should be made at the time, since it rapidly decomposes. (Harnack found a solution efficacious which had

been kept a year and was of a deep green color, and refers to Quehl for a similar observation.) In powder apomorphia keeps well.

M. Raymond has observed the good emetic effects of apomorphia in the wards of M. Vulpian, who uses it as the habitual emetic.

Jurasz has used apomorphia as an expectorant, and finds that in cases of tracheitis and bronchitis, including inflammation of the smaller and smallest bronchi, the tough mucus, expectorated with difficulty, is easily dissolved, the sputa become more copious, and the expectoration easier; the improvement in the physical signs corresponds, the râles at first dry, sibilant and sonorous, becoming moist and gradually decreasing.

The dose for an adult is from the $\frac{1}{65}$ to $\frac{1}{22}$ of a grain, in water, syrup and muriatic acid.

Arsenic.

Unterberger and Boehm *(Archiv für Experimentelle Pathologie und Pharmakologie*, 1874, p. 89*)* have made a series of experiments which tend to modify the views generally held as to the modus operandi of arsenic. They find that arsenious acid injected into the blood of mammals produces an enormous fall of the blood pressure, together with a slowing of the pulse. This phenomenon is due in part to a paralysis of the abdominal vessels, in part to a diminished contractile force in the muscular substance of the heart. The cardiac nerves, however, retain their normal condition, and the vessels of the sympathetic territory (head and neck?) are not paralyzed.

They find also that the symptoms and post-mortem appearances produced when arsenic is injected into the blood are not distinguishable from those found when it is taken by the mouth, except that the fatal dose is larger in the former than in the latter case.

The amount of the mineral found in the intestinal canal, when an animal was killed by arsenic injected, was too small to account for the local appearances on the theory usually held, i. e. its elimination by the stomach and the production of irritation on its passage through the secreting organs.

They content themselves with thus indicating the untenability of the usual views of arsenical poisoning, without endeavoring to construct a complete theory of their own.

Cundurango.

Obalinski *(Centralblatt*, July 25, No. 36, p. 561*)* reports two cases, one of a woman of 80, with a shallow epithelial cancer of the lower eyelid, and another of a woman æt. 50, with a cancroid as large as a bean upon the side of the nose, constantly returning after cauterization with caustic potassa, both of whom were treated with a decoction of cundurango bark, fifteen grains three times a day internally, and an external application of charpie soaked in the same.

After six weeks of treatment, both the ulcers were healed. He attributes two previous failures of the same medication in cancers of the foot and of the temple to the use of inferior preparations.

(This surgeon would probably be interested in the fatal result of the case of the lady who furnished such a large advertisement for Bliss & Co., and who must have enjoyed every facility for obtaining the very best article the market afforded, and whose surgeon s knew if anybody did, how to prepare it.)

Bibliographical Notices.

Essays on Conservative Medicine and Kindred Topics. By AUSTIN FLINT, M.D., &c. Philadelphia: H. C. Lea. 1874. Pp. 214.

THE distinguished reputation attained by the author as a teacher and writer predisposes the reader of these essays to believe that they will present to him very much that is suggestive and instructive; and a perusal of the book does not falsify the hope. Elegant, forcible and direct in style and diction, these gathered contributions to medical literature, extending over a considerable period, and first published under varied conditions, are the fruits of a mature experience and an accomplished mind, and represent the best thought of American physicians concerning the topics discussed. The author deserves the thanks of the profession for republishing the essays in their present form. From the fact that some of the writings dealing with allied topics, were originally published in different medical journals, the reader will notice something of repetition in ideas and expression; but the re-iteration affects matters that bear such treatment well.

The first three essays discuss what the author denominates "conservative" medicine. Getting a suggestion for the term from the well understood expression "conservative surgery," the essayist defines his subject as including "everything which prevents impairment of, or tends to develop and sustain, the powers of life." "The conservative surgeon aims to preserve the integrity of the body. * * * The conservative physician shrinks from employing potential remedies whenever there are good grounds for believing that diseases will pursue a favorable course without active interference." It will be seen that the term "conservative medicine," so employed, has a synonymous meaning with the expressions "rational medicine," and "expectant treatment."

The author developes his idea with logical clearness and consistency. He traces the changes from the "heroic" practices of former times to the more reasonable methods now prevailing. The earliest and fullest development of the new order is awarded to New England, to the writings and teachings of Bigelow, Jackson and Ware, the legitimate fruit of advanced scientific research. After an interesting historical review of the change in medical thought and practice, and of the reasons therefor, the author examines more in detail the application of conservatism to therapeutics and hygiene.

In the fourth paper, an anniversary discourse, Dr. Flint gives an exceedingly interesting sketch of recent advances in medical science. Incidentally, he alludes to auscultation and its value as an aid in diagnosis. For the younger generation of physicians, it is rather difficult to realize that so late as 1836 the stethoscope was spoken of slightingly by writers who stood high in the profession, yet our author so asserts.

The study of the natural history of diseases receives in this essay well merited attention; the writer says that by this study physicians have found out that many diseases are self-limited, that they tend intrinsically toward recovery, and that they have a well-established individuality.

The fifth essay is devoted to a discussion of alimentation in disease. The author makes a strong plea in favor of generous diet in the treatment of diseases. "If we except," he says, "the early stages of some acute diseases, in which it may be an object to withhold aliment with an indirect reference to depletion, there is never any risk of hypernutrition."

In the sixth paper, we have a broad and intelligent view of the meaning of tolerance of disease—the ability of the vital powers to endure morbid processes, whether acute or chronic. "Conservatism in medical practice is the protection and promotion of tolerance"—the economizing of vitality.

The seventh essay deals with the reciprocal influences of the mind and body on the causation, prevention and cure of diseases.

The closing article has for its purpose to prove that the existence of dis-

ease is an evidence of Providential design in the affairs of the world—that disease is a part of the plan of creation, and ordered for a benificent purpose. The author adduces many pertinent illustrations from his clinical observations to confirm his proposition. The essay was addressed to a popular audience, but it is characterized by a depth of research and a catholicity of judgment that must make it instructive to even the most scientific reader.

We have given only the barest outline of these exceedingly interesting essays. To say that they are deeply suggestive, that their tone is healthy and their tendency salutary, is scant praise. They are creditable to the head and the heart of their distinguished and widely respected author.

Nomenclature of Diseases: Prepared for the use of the Medical Officers of the United States Marine Hospital Service. By the Supervising Surgeon (JOHN M. WOODWORTH, M.D.). Washington: Government Printing Office. 1874.

THE "Provisional Nomenclature" of diseases, drawn up by a joint committee appointed by the Royal College of Physicians of London, England, has been adopted by the United States Marine Hospital Bureau "as the nosological system to be observed by medical officers of the service in their reports and communications." This action has been taken by the Bureau in the belief that the "Provisional Nomenclature" forms the most promising basis for a standard and international nosonomy and classification, being subject to a decennial revision, in which it is probable that the profession in this country will be represented, and being, moreover, the work of men of the highest standing in the profession. This is the first official adoption of the work in this country, although the classification of diseases in the statistics of mortality for the IXth Census of the United States was practically made in accordance with it. It has also been endorsed by the action of the American Medical Association. The present edition is a copy of the English original, with the omission of the French, German and Italian equivalents. We think this omission, although it would doubtless have increased the size of the book beyond desirable limits to retain them, is nevertheless to be regretted, the extent to which German and French works are consulted by the profession in this country making the presence of these two languages, at least in the nomenclature, almost indispensable. A very complete and valuable index accompanies the book, making it doubly useful for reference. We are glad to see works of this kind executed under Government auspices. The printing and style of the book speak for the thoroughness of the work done at the Government Printing Office.

BOOKS AND PAMPHLETS RECEIVED.

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D. Fourth edition, thoroughly revised. Philadelphia: H. C. Lea. 1874. Pp. 801.

The Protection of Animals. By George T. Angell. (Read at the Annual Meeting of the Social Science Association, 1874.) Riverside Press, Cambridge. Pp. 16.

Nelaton's Method of Resuscitation from Chloroform Narcosis. By J. Marion Sims. Read at the Annual meeting of the British Medical Association.

The Hypodermic Use of Quinine: A Dangerous Experimental Medication rarely Justifiable. By Stephen Rogers, M.D. From the New York Medical Journal. Pp. 15.

PROFESSOR HEINE, of Prague, treats chronic enlargements of the prostate by injections per rectum of ten drops of tincture of iodine with twenty of water. Of eleven cases treated by this plan, good results are reported in all.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC'Y.

JUNE 8th, 1874.—*Paraplegia, with contraction, eschars, congestion and sclerosis of Spinal Cord from compression by a Tumor.*—DR. EDES reported the case and showed the specimen.

A negress, æt. 25, entered the City Hospital April 10. She had had a still-born child at term, and a miscarriage at four months last winter.

Since the previous June (ten months), she had been gradually losing power in legs, and for last four weeks had been unable to walk. For three months there had been pains in back and legs, which had somewhat diminished at time of entrance. Except stiffness of joints and loss of power, has felt well.

Two days before entrance had difficulty in passage of urine, which becoming complete retention on the next day, was relieved by catheter.

At the time of entrance, the legs were drawn up and rigid. She was able to extend them slowly and with some pain. Was suffering from retention of urine, which was relieved by catheter. Bowels constipated. If her legs were suddenly drawn down, a spasmodic movement in the direction of flexion resulted. This condition gradually passed into complete paralysis. The reaction of the muscles to the galvanic and to the induced current appeared to be normal.

It was difficult to determine with accuracy the condition of sensation. It appeared as if tactile sensibility in the legs were lost for some time before death, while sensibility to pain continued. She constantly reported two points of contact as one, or else answered entirely at random, although she appeared at times to feel a pain from the experiment. On one occasion, she reported sensation from the battery current, when none was passing. The above was the condition in the legs and lower part of back. There was no tenderness of spine, either to pressure or percussion.

The urine was at times voided involuntarily, as were the fæces toward the last. At other times, the catheter had to be used. The urine contained some albumen, with pus and mucus. The left side of the face was partially paralyzed, and at times affected with muscular twitchings. So far as she knew it had always been so. She gradually failed, becoming weaker, and taking but little food, and passing urine and fæces in bed. She usually lay upon her back, with the mouth open, head somewhat retracted, and much sordes on teeth. The right leg was strongly flexed, and adducted so as to be thrown over upon the left side. The movements of the hands became weak, but there was never any paralysis.

During the last fortnight, extensive sloughs formed over the sacrum and trochanters. She died May 30th. The pain was relieved at first by the galvanic current, as it had been before entrance. Iodide of potassium was ordered, but it is probable that she did not take a great deal of it.

Autopsy.—The calvaria was of great thickness. The brain (including cerebellum) weighed forty ounces. The dura mater presented

nothing abnormal before removal, but the pia mater was much congested, the vessels being enlarged and tortuous. The substance of the cord itself, especially the grey matter, was somewhat reddened.

Upon further examination of the dura mater after its removal, a flattened mass was discovered adherent to its anterior surface, and presenting the appearance of having been torn from some portion which probably remained in the spinal canal. Unfortunately this was not discovered until some hours after the removal, when a further examination of the anterior wall of the canal, where there was probably another attachment of the tumor, could not well be undertaken. Its length was about two inches, and its point of greatest thickness, where, of course, the compression of the cord was greatest, was just below the cervical enlargement, so that the tumor may be said to have occupied the lower cervical and upper dorsal regions. Laterally it did not pass beyond the anterior nerve roots on the right, and but slightly beyond on the left, where, however, its thickness was considerably greater. Its edges were not distinctly limited.

Upon examination of the nearly fresh specimen, it was found that, in the region of greatest compression, the vessels were fatty, many "granulation cells" present, and occasional masses of pigment. The myeline appeared more broken up than normal. A zone of exudation surrounded some of the vessels.

These changes, especially the fatty, were more marked in the anterior and posterior columns, less in the lateral. These always diminished in degree, in both the upward and downward direction.

Upon making sections of the hardened cord, the fatty changes, of course, ceased to be visible, owing to the process of preparation. The most obvious features in the transparent sections were the greatly enlarged and numerous vessels which were filled with blood. These were seen in all parts of the sections in the affected region, but were especially numerous in the posterior horns, of grey matter. In the neighborhood of the point of greatest compression, and especially upon one side (probably the left), the vessels were accompanied by a considerable amount of connective tissue.

The nervous tissue, especially in the anterior columns, was atrophied, the usual concentric circles of myeline, around the axis cylinders, being either absent or very small, while the axis cylinders themselves were either absent or difficult to detect from the change in their usual relations and the hypertrophy of connective tissue. The anterior portion of the lateral columns had apparently undergone a certain amount of change of the same character, and also the posterior columns. These changes extended but a short distance beyond the point of compression, the lumbar and even the middle dorsal region being free even from marked congestion.

The tumor consisted of laminæ of dense connective tissue, continuous with that of the dura mater, enclosing masses of medium-sized, oval and irregular nucleated, and a few spindle-shaped, cells.

It is to be regretted that the circumstances of the autopsy prevented an examination of the anterior surface of the tumor, which might have thrown more light upon its origin.

Nothing was found in the medulla oblongata, or facial nerve, to account for the partial facial paralysis.

Partial dislocation of the left Os Innominatum.—Dr. Porter reported the case as follows:—

A lady, 52 years of age, fell down a short flight of stairs, striking upon her left side, but causing no bruise or ecchymosis to mark the point upon which she struck. When I first saw her, she complained of great pain through the pelvis, locating it principally at the symphysis. I suspected, from the nature of the accident, that she had fracture of the neck of the femur, but, upon careful examination, the pelvis being supported (on account of her loud complaints on any motion), no fracture or dislocation of the femur could be found, the foot being readily placed in its normal position. The patient—an exceedingly intelligent one—declared herself "disjointed," and located her severest pain at the symphysis pubis and left sacro-iliac synchondrosis. Upon examination, there was perceptible motion of the left os innominatum upon its fellow and the sacrum, and at the symphysis pubis a slight dislocation upward of the left bone. The pelvis being supported, she could perform all motions of the legs with but little pain, but without support the least movement was torture. There was no crepitus. There was but one conclusion, a partial dislocation of the left os innominatum. I stated it, and also that it was to me an unique injury.

She then told me that she had been weak there for many years; that she was the mother of ten children, and had always difficulty in walking during the last few months of her pregnancies, and for some months after, from relaxation of the pelvic ligaments, necessitating strong "binders" for months. The pregnancies had followed each other rapidly, and this fact, with the relaxation of the ligaments, explained to me the possibility of this rare accident. Strong, wide bands of adhesive plaster were applied from time to time around the pelvis; these she wore for three months, with confinement to bed for nearly that time.

She made an excellent recovery.

Wound of Heart, probably from a Knife. Dr. Goss reported the case and showed the specimen.

L. N., aged 21, was murdered on the morning of February 15, 1874. He was found by the police, who were summoned by his cries, about 1, A. M., and died in the station house about half an hour later. Besides several bruises on the body, and a number of cuts on the face, he received a mortal wound in the chest, which penetrated the heart. The weapon, with which it is supposed the wounds were inflicted, is a pocket knife having a dull blade about half an inch in width and three inches in length.

The wound in the chest was transverse in direction and situated one and one-half inches above the tip of the ensiform cartilage, and three-quarters of an inch to the right of the median line. Through the wound, which was about half an inch in length, a probe could be passed inwards, upwards and to the left, a distance of two inches. On opening the thorax, it was found that the wound penetrated the walls of the chest, between the cartilages of the sixth and seventh ribs close to the right border of the sternum, thence passed through the cellular tissue of the mediastinum, through the pericardium and, finally, entered the right ventricle of the heart, at the base of one of the columnæ carneæ of the tricuspid valve.

The wound of the heart was about one-third of an inch in length, and nearly horizontal in the normal position of the heart. All the cav-

ities of the heart were destitute of blood. The pericardium contained nearly eleven fluid ounces of blood, dark, and, for the most part, clotted. The anterior mediastinum, from the diaphragm as high as to the third rib, was infiltrated with blood. No blood was found in either pleural cavity, nor was either lung injured.

Myxo-sarcoma of the right Testicle.—Dr. Hosmer, of Watertown, reported the case.

J. McN., Irish, a small, but well-proportioned, man, aged 68. His life has been a steadily industrious one, involving a good deal of hard labor. Although he has not abstained totally, he has never indulged excessively, and his general health has always been excellent.

In 1869, he first noticed an enlargement upon the right side of the scrotum. This gave him no inconvenience, but underwent a gradual increase of size. And I am satisfied, from the results of close questioning, that hydrocele formed no part of the original swelling, and that from the first the testicle itself was the seat of a disease, in the later stages of which effusion took place within the tunica vaginalis. Sometime in 1871, such changes had taken place in the condition of things, that the testicle, as such, could no longer be identified. The growth of the mass went on, receiving no attention from the patient until about two years ago, when it had attained such dimensions as to incommode him somewhat. He then sought relief in a suspensory bandage, purchased somewhere in Boston, and was advised by the vender of the same to go to the hospital, and be tapped. This advice was not heeded. He soon outgrew the suspensory, and was forced to depend upon such contrivances for mechanical support as domestic ingenuity could devise; meantime performing his usual work, and losing none of his efficiency as a laborer. And it is only within a few months that the disease has come to be a serious impediment. During the past winter and spring he has lost a very little flesh, has suffered a slight diminution of strength, has been more sensitive to cold weather, and more inclined to sit still in the house; yet he has been able to perform some labor, such as sawing wood. Early in April, there came to the scrotum on the diseased side, a sudden and considerable increase of size which affected chiefly the upper and outer portion of it. April 16, for the first time, the symptom of pain appeared in the case, and this was less an uncomfortable sensation within the scrotum, than a feeling of weight and dragging located in the inguinal and lumbar regions of the right side. About this time the patient took to his bed, and on Sunday, April 19, 1874, sent for me. I obtained from him the facts as stated above. His general condition, though a little below its usual average, was quite satisfactory. His local condition, very striking even to careless inspection, may be given in detail, as follows: There lay between his thighs the scrotum so distended that it measured, by estimate, eight inches vertically, and nearly five horizontally. The skin was thin, soft, free and elastic. There could be felt within, two distinct portions; first, an exterior layer of liquid, detected by fluctuation, confined mainly to the lower anterior and upper lateral (outside) portions, and at the latter point at least half an inch thick; secondly, a central solid mass, ovoid in shape, neither sensitive nor insensible, heavy in the hand, not perfectly uniform in its density, and presenting here and there upon its surface some small nodular irregularities. The spermatic cord was absolutely free from engorgement or

tenderness, and could be traced down to its connection with the tumor. No testicle could be found. By tapping at two different points with the aspirator, I drew away twenty ounces of yellowish serum, such as a hydrocele ordinarily yields. This reduced the swelling in size and weight, and gave complete relief to the pain which was first felt three days before. I then thrust the needle of the instrument into the upper portion of the mass where it was softest, but with a negative result.

Although unable to settle the question of diagnosis, on visiting the patient on the following day, I suggested the removal of the disease by surgical operation, and signified my readiness to do it. He received the proposition very calmly, and requested time for consideration.

April 30.—A returning effusion into the cavity of the tunica vaginalis had caused a return of pain and discomfort, and another tapping was requested. Somewhat less than a pint of bloody serum was obtained with the aspirator. The relief of pain was as marked as before.

At this time all the facts and possibilities which the case involved were plainly stated to the patient, and he was urged to decide the question of operative interference.

May 2d.—He informed me that he wished to have the diseased testicle removed.

May 4th.—The operation was done, in the presence and with the assistance of three of my professional neighbors, Drs. Richardson, Stone and Thayer. The patient was etherized, and after the preliminary use of a razor, an incision was made from the external ring to the bottom of the scrotum.

Although the size, shape and smooth exterior of the tumor rendered its manipulation a little inconvenient, its connection with the integument was easily divided, consisting as it did of a superabundance of loose cellular tissue. The spermatic cord having been cleanly dissected at its lower extremity, was seized with suitable hooks, and divided with the knife, after which the requisite ligatures were applied. On making a section of the tumor, about ten ounces of bloody fluid escaped from the tunica vaginalis. The solid portion, enveloped in two single compresses and a towel, weighed $63\frac{1}{2}$ ounces. The weight of the mass removed may be safely stated as 70 ounces.

May 11th.—One week from the operation. No untoward symptom yet. The condition of the patient is unexpectedly promising.

The specimen was shown by Dr. Fitz.—

An examination of the tumor showed no evidence of extension of the disease along the spermatic cord. The cavity of the tunica vaginalis was in part obliterated by adhesions; some, quite firm; others, easily broken down. The tunica vaginalis was very much thickened and indurated; its surface presented patches of hæmorrhagic false membrane. At various parts, the growth had extended through the tunica albuginea, in the form of flattened and rounded nodules the surfaces of which were intimately connected with the parietal layer of the tunica vaginalis.

The disease was found to extend throughout the entire testicle, no normal tissue remaining. A distinction between epididymis and testis was apparent though not sharply defined, suggested rather by differences in density, color and form. The entire mass was cut with great ease, the firmest portions being found in the epididymis. These were more or less distinctly lobulated in section, gray, somewhat

translucent and permitted the escape of a moderately viscid opaque fluid.

The body of the testis was composed of a soft basis substance, yellow and opaque, at times gray, in which were numerous apparent cavities, the largest of the size of walnuts; all contained a viscid, transparent material, in parts almost fluid, elsewhere semi-solid, varying in color from yellowish- to reddish-brown. In those spaces where the substance was the more fluid, the periphery was smoother. Other portions of the tumor were of a gray color, streaked and dotted with red lines and points, dilated and injected bloodvessels with exceedingly delicate walls. Hæmorrhages had also occurred in various parts of the tumor. The microscope showed that the more gelatinous portions were composed of a more or less homogeneous material, in which were numerous delicate fibrils forming meshes containing large round cells (mucous corpuscles) in varying numbers, some fatty degenerated. Large, spindle-shaped, homogeneous glistening bodies were found; also the so-called colloid bodies, large spheroidal masses with similar optical properties so those just referred to.

The denser viscid portions presented the fibrils, basis substance and round cells; in addition, numerous spindle and stellate cells, often anastomosing. In the firmer, opaque yellow parts, similar cells were found, all filled with fat drops; the fibres were more abundant and larger, often arranged in bundles. The firmest portions of the tumor were composed almost entirely of large, round cells, diffused throughout the mass, separated by fibres or by homogeneous substance. Everywhere in the tumor, the characteristic reaction of mucine was presented. Though the structure of the tumor indicated a myxo-sarcoma, it was evident that the myxomatous element strongly predominated, and occasionally might be regarded as a degeneration condition.

The prognosis of the case, Dr. Fitz considered as uncertain, as there have been very few cases of the nature reported. Virchow, however, speaks of one which occurred in Velpeau's practice, which did recover.

Dr. Wheeler had seen a case in which the disease had recurred, where the gross appearances were identical with the specimen now before the society.

Notes of Hospital Practice; Charity Hospital, New York.—*Mucous Patches* yield in a few days to the internal administration of one fourth of a grain of the green iodide of mercury, together with the local application of the solution of the acid nitrate of mercury. The same caustic proves very serviceable in condylomata, and is used in preference to others.

Buboes.—If these are the results of chancroids, any attempt to prevent their suppuration by pressure, with application of tincture of iodine, usually fails. When suppuration does take place, the dissection out of the gland by means of the handle of the scalpel is the best method to promote a speedy cure. The cavity is filled with balsam of Peru and oakum, in order to get the sore to heal from the bottom.

Epididymitis.—Many varieties of treatment have been had recourse to, but the one that gives the best results is the tobacco-poultice. The method of using it is to make a poultice with the tobacco-leaves and apply it to the scrotum at night. In the morning, it is found that much of the pain has disappeared. The poultice serves a double service—first, that of an ordinary poultice; and, secondly, that of a depressant and nauseant.

Phagedenic Chancroids.—The actual cautery is used to stop the phagedenic action, and serves its purpose very well.—*New York Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, September 24, 1874.

The subject of quarantine has just received renewed attention at the hands of the national government. Two years ago, Congress passed a resolution appointing a commission to devise a system of quarantine, which should be adapted to keep at bay the contagious diseases liable to be imported, and which should be an improvement upon the prevailing methods. We have not as yet seen any practical results coming from this action on the part of Congress; but now we have an important circular order issued from the Treasury Department and prescribing the duties of United States officers with reference to quarantine and public health. This order directs the officers of the customs revenue, the masters and crews of revenue cutters, and the medical officers of the Marine-Hospital service, to render all needful assistance to local health boards and to quarantine officers in the execution of the health-laws of their State. Furthermore, in accordance with the national law under which these orders are promulgated, the military power may be invoked in pursuance of the same end. All this looks very formidable indeed, and we ought to feel grateful that our port-physician can command such efficient allies—that, in case of emergency, a score or more of sharp-scented customs inspectors can be called on to ferret out the unlawful contagium, that revenue-cutters may run down the cholera or the "yellow Jack," and that the great guns of Fort Warren, if the emergency be indeed very urgent, may be brought to bear upon the case.

Accompanying the order of the Secretary of the Treasury is a circular letter of Dr. Woodworth, the Supervising Surgeon of the United States Marine-Hospital service, calling for information and suggestions from local health authorities; the design being to make such data of quarantine regulations the basis of specific action. It will be truly a most beneficent thing if from all these measures there shall come some scheme of quarantine that shall give the greatest good to the greatest number, that shall respect the rights of travellers and of importers on the one hand and the welfare of great communities on the other.

Out of the exceeding diversity of opinions which characterized the deliberations of the International Sanitary Congress just held in Vienna, a conclusion concerning quarantine was reached favoring liberality in the matter of detaining ships coming from infected ports. The sick on board such ships should be removed to quarantine hospitals, and

the ships themselves should be disinfected, while the passengers who are not sick should be allowed to go on their way after a bath and a change of clothing—such was the dictum of the Vienna convention. And while river- and land-quarantine are impracticable, while railroads and steamboats provide the freest transit for disease, probably the above regulations are all that ought to be imposed on ocean transports.

Meantime, let us indulge in a little self-complacency in this latitude. The report of the port-physician of Boston for the year just ended states that during the year not any "sickness had been found on shipboard, nor was any reported to have occurred during the voyages terminating at this port." May it be very long before Dr. Fisher finds it necessary to invoke the aid of either the War Department or the Treasury Department to help him keep imported contagious diseases well out at sea!

Under the heading "A sad case," several of our newspapers have given in pitiful language, from the *Philadelphia Inquirer*, the history of a criminal pardoned from the Eastern Penitentiary, and of his release. The story has been too often told to need repetition. We allude to it for the the purpose of reiterating our belief that ill health is not a proper and sufficient reason for pardoning a prisoner. If a prison be not in as healthful condition as it can be made, it should be the duty of the authorities to make it so. If there be not as good medical attendance within its walls as can be had, such should be obtained. If the law provides too severe penalty for an offence, let the law be amended. But the object of punishment is for the protection of the public, not only by keeping the offender away from the public, but by its warning to deter others from committing crime. The fact that a prisoner is "intelligent," is much more a reason for punishment and seclusion than it is for pardon. We have sympathy for the parents; we pity the prisoner; but we have more sympathy for the public, and more pity for those who have suffered from the prisoner's misdeeds. Education, far from being an argument for his release, should be an argument for his longer confinement. The ignorant North Street cellar thief has not had the advantages of the swindler, who may have been born within a few rods of Boston Common; and if lenity is to be shown to either, the former should receive it. But prevention of crime being the object of the punishment, the sentence should be carried out in full, sick or well. The same effort which would be used to cut off a portion of the time of seclusion of the sick man who is guilty, should be used to obtain pardon for the sick man condemned to death for murder.

We can see no reason why the governor and council might not as

well provide for sending such to a more genial climate, where recovery of health and renewed powers of larceny might be obtained together.

After writing the above remarks, we have learned the details of a case in the state prison which comes just in time to show their justice. A man who was condemned in 1862, for an assault with intent to kill, to a long term of imprisonment, has for more than two years been feigning paralysis with great skill. We understand that some time ago a member of the legislature promised the would-be homicide to obtain his pardon if he was not well in a year, but happily could not fulfil his promise. The attending physician not being without suspicion, administered ether last week, after consultation with a well-known surgeon. The prisoner's powers of self-command were so great that he kept his legs quiet till almost complete unconsciousness was produced, but the anæsthetic conquered at last and showed that the paralysis was purely voluntary.

Dr. Hammond is bringing the hydrophobia season to a brilliant close by suing the *Medical Record* for libel. The quarrel is a very pretty one as it stands. Dr. Shrady, the editor of the *Record*, opens his columns to Dr. Hammond, to reply to his criticisms, saying, "if I am wrong, I am perfectly willing to be set right." Dr. Hammond, however, desires to convince Dr. Shrady of his errors in a private interview, and then to have the latter retract his remarks. Neither of the antagonists will accept the terms of the other, and so the majesty of the law is to be appealed to.

We will not pursue the subject further, fearful lest Dr. Hammond might not "in mercy stay his pen," as he did in favor of the "Ishmaelite of the *Philadelphia Medical Times*, who has presumed to dabble in the matter."

Correspondence.

Massachusetts Charitable Eye and Ear Infirmary.

Messrs. Editors,—I notice, in your issue of September 3d, an inquiry as to whether the Massachusetts Charitable Eye and Ear Infirmary is intended for the poor only; also, a statement that complaint has been made because persons able and willing to pay have applied for admission.

The Infirmary is intended solely for the poor and needy. A large number of its beds are free; the occupants of the others pay the nominal board of five dollars per week. No case, however, is ever rejected because this amount is not forthcoming. No charge for treatment is ever made; those able to pay are expected to apply elsewhere.

It is needless to say that the institution is very often imposed upon by those whose means render them perfectly able to consult private practitioners.

Hasket Derby.

Boston, Sept. 14, 1874.

Medical Miscellany.

"THE MEDICAL STUDENT" is the name of a new monthly journal to be started at Wheeling, West Virginia, on the first of the coming year.

LARGE BILL FOR DENTISTRY.—A New York dentist, named Atkinson, has recently brought a suit against the actress, Agnes Ethel, to recover a bill of $1,025 for services in filling teeth.

BROMIDE OF CAMPHOR.—M. Bourneville finds that this compound diminishes the number of the arterial pulsations; it diminishes also the number of the respirations, and modifies the temperature. It acts as a powerful sedative, and its calming effects may be of use in certain diseases of the nervous system.—*Edinburgh Medical Journal.*

DR. STUART ELDRIDGE, an American physician connected with the medical staff of five large native hospitals on the island of Yesso, Japan, has a large number of native students attending his clinical lectures. He publishes in the Japanese language a bi-monthly illustrated medical journal, which finds numerous readers.—*Medical and Surgical Reporter.*

NOSE STRAIGHTENER.—This is the name of a new instrument, displayed at the annual meeting of the British Medical Association. It is designed to bring into proper shape a mal-formed, fractured or dislocated nasal organ, and is furnished with springs and pads, which, taking the forehead as a fixed point, may be brought to bear upon any part of the nose.

AN INDIGESTIBLE MORSEL.—At a late meeting of the Société Médicale des Hôpitaux in Paris, M. Dujardin-Beaumetz exhibited a flattened leaden bullet which had been swallowed by a child. It had remained eight days in the digestive organs, produced asphyxia at the outset, and was voided naturally without having given rise to the least symptom of lead-poisoning, after treatment consisting of the administration of purgatives and sulphuric acid lemonade.—*London Medical Record.*

ANTI-VACCINATION DEMONSTRATION. —In Gainsborough, England, George Airthorpe who was recently released from prison for refusing to have his child vaccinated, was drawn through the town by his fellow-workmen. At a meeting held afterwards in the market-place, memorials to Mr. Disraeli and Mr. Scalter-Booth, demanding the repeal of the vaccination laws, were adopted, and Airthorpe, who presided, was presented with a purse of money. The meeting was attended by between three and four thousand persons.

PURIFYING WATER.—It is not generally known that pounded alum possesses the property of purifying water. A tablespoonful of pulverized alum sprinkled into a hogshead of water (the water stirred at the time) will, after the lapse of a few hours, by precipitating to the bottom the impure particles, so purify it that it will be found to possess all the freshness and clearness of the finest spring water. A pailful containing four gallons may be purified by a single teaspoonful.—*Medical and Surgical Reporter.*

HOMŒOPATHIC SURGERY.—Recent criticisms of the Philadelphia newspapers, and especially the *Press*, as to the efficiency of the staff of the Homœopathic Hospital in that city, are the reverse of flattering. It appears that by an extraordinary order of the Mayor, accident cases have of late been carried by the police to that institution, and a death having occurred under somewhat remarkable circumstances, a coroner's inquest was held, which returned a verdict that death was due to delay in medical treatment, and that the physicians in charge were in the highest degree censurable. Many other cases of death have been reported, the details of which render it pretty evident that the results of the Mayor's order are such as might have been anticipated.

Dry Gangrene of the Penis.—A case of this rare affection is reported in the *British Medical Journal* (August 29, 1874), occurring in a man aged 34. The gangrenous process set in about a month after the contraction of a syphilitic ulcer, gradually involving the entire organ, which became cold, hard and dusky. A good line of demarcation next formed at the junction with the scrotum, and the whole penis finally became detached.

Efforts are making in Russia to abolish the law which obliges a physician to visit any one who may call on him. As it now stands, he who refuses to go is liable to a fine of from five to ten roubles for the first offence, of from ten to fifteen for the second, and of from fifty to one hundred for the third. Moreover, any physician so offending, who may be in the service of the government, is liable to be dismissed. The worst of it is that the law is no dead letter, but is actually enforced. It was only in 1869 that a similar law was repealed in Prussia.

Local Treatment of Pulmonary Cavities.—Dr. Mosler, of Griefswald, has, in a number of cases, and with relative success, penetrated directly from the surface through the thoracic parietes into caverns, pulmonary abscesses, and bronchial dilatations, treating them like ordinary abscesses. One or more punctures are made with a canula of sufficient size, and a small quantity of permanganate solution injected. Dr. Mosler thinks that the pulmonary parenchyma is more tolerant than is generally supposed, and that it may be acted upon through the thoracic parietes in the same manner as any other organ to which the surgeon has access. Not only pulmonary cavities, but pulmonary inflammations may be treated by medicated injections, just as other neoplastic parenchymatous tumors are treated.—*Berliner klinische Wochenschrift; New York Medical Journal.*

Tobacco and Public Health.—Dr. C. R. Drysdale appears to have enlisted under the banner of Mr. Trask, the anti-tobacco agitator, taking strong grounds against the use of tobacco, which he does not hesitate to designate as a vice. In a paper read at the annual meeting of the *British Medical Association*, he affirmed that within one week he had seen two young men affected with almost complete loss of vision, induced in one case by excessive smoking, and in the other by chewing tobacco. Among the other maladies which he conceives to be produced by *nicotiana tabacum*, may be mentioned dyspepsia, diarrhœa, piles, palpitation of the heart and functional disease of that organ, stomatitis, paralysis, and especially paralysis agitans.

Mortality in Massachusetts.—*Deaths in sixteen Cities and towns for the week ending September* 12, 1874.

Boston, 195; Worcester, 26; Lowell, 40; Milford, 2; Chelsea, 10; Cambridge, 51; Salem, 13; Lawrence, 19; Springfield, 16; Lynn, 21; Fitchburg, 5; Newburyport, 2; Somerville, 7; Fall River, 24; Haverhill, 4; Holyoke, 12. Total, 447.

Prevalent Diseases.—Cholera infantum, 125; consumption, 60; diarrhœa and dysentery, 36; pneumonia, 11; typhoid fever, 10.

Cambridge reports five deaths, and Boston four deaths, from whooping cough; none reported elsewhere.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Sept. 19, 151. Males, 79; females, 72. Accident, 9; apoplexy, 1; inflammation of the bowels, 4; disease of the bowels, 2; bronchitis, 3; disease of the brain, 7; cystitis, 1; cholera infantum, 42; cholera morbus, 1; consumption, 18; convulsions, 3; croup, 3; debility, 3; diarrhœa, 6; dropsy, 1; dropsy of the brain, 2; drowned, 1; dysentery, 1; eczema, 1; scarlet fever, 2; typhoid fever, 4; gastritis, 1; disease of the heart, 3; hæmorrhage, 2; disease of the liver, 2; inflammation of the lungs, 2; marasmus, 7; old age, 2; paralysis, 2; premature birth, 4; phlebitis, 1; puerperal disease, 1; disease of the spine, 1; suicide, 1; teething, 2; tabes mesenterica, 1; ulcer of leg, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 92; between 5 and 20 years, 7; between 20 and 40 years, 26; between 40 and 60 years, 14; over 60 years, 12. Born in the United States, 115; Ireland, 29; other places, 7.

THE

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Original Communications.

PUERPERAL INSANITY.*

By W. W. GODDING, M.D., of Taunton,

Superintendent of the Massachusetts State Lunatic Asylum.

THE vagaries of lunacy, the varying phases of mental delusion, are interesting enough as a diversion, but are of very little concern to the practitioner. That "It pleased God to form poor Ned a thing of idiot mind" hardly arrests our attention beyond the passing wonder why He made him at all; but the question, what can I do with puerperal insanity? may any hour in the day become a practical one to be decided by any one of us. Given the case; what will you do with it? Cases of puerperal mania in the great majority of instances either die within the first two or three weeks from exhaustion with typhoid symptoms, or recover somewhat rapidly, the excitement subsiding at the end of a few days or weeks, rarely continuing months. The exceptional cases neither die nor recover, but pass into chronic dementia. In the onset of the disease there are usually some slight premonitions of a wandering mind, but the nurse does not always remark them, and the explosion follows so soon that an outbreak of violence or destructiveness or obscenity may be the first intimation of what has come. You find your patient up, walking about the room, or held in bed by two or three strong women, or, it may be, she is lying still, tearing her clothes, swearing, or pouring out a stream of obscenity so foul that you wonder how in her heart of hearts such phrases ever found lodgment. Now what will you do with her? Many answer by promptly sending the case to a hospital, which I have no doubt is very often the best and only thing that can be done, though I have wondered if my considerable experience with typhoid exhaustion had any connection with this promptness. It is certainly to be gravely considered whether in the first few days after confinement the risk of removal to a hospital at any considerable distance does not more than counterbalance any possible greater benefit to be derived from hospital treatment. Consider, too, before you send to the hospital, that that is a step which once taken can never be recalled out of her life. Treat the case at home, and should it terminate fortunately, the excitement subsiding in a short time, the memory of it in the minds of friends will be of a sickness with some delirium, a little queer as women often are after confinement. Send to the hospital, and, though the recovery is rapid and satisfactory, and the woman herself has rather a pleasant recollection of her convalescence, as is generally the case when the recovery is complete, still she has been insane, and

* Read before the Bristol North District Medical Society, September 10, 1874.

this is never forgotten by her friends or her children; henceforward there is a certain dread of what may be in the future, a skeleton in the closet, not mentioned but always there.

So, the circumstances and condition of the patient justifying, you decide to attempt the treatment at home. You want good nurses who will not gossip, and who are not afraid. The points to be gained are rest in bed, sleep, nutrition. But your patient will not stay in bed; then make her do so. Do not wear out her strength and the patience of your nurses; provide a strong brown linen waist, made full in the bosom, fastening behind, with the sleeves closed at the end and prolonged a yard beyond the hands, then you have something soft and strong that can be tied together behind the back; sometimes you will not need to keep it tied; sometimes, even when tied, she will keep struggling out of bed, and it is a constant exertion for the nurse to keep her in; then pass sheets under the arms and lash her to the bed. Have no nonsense about the looks of the thing; here is one of the cases where "the life is more than raiment." Remember it is a woman's existence you are trying to save, that typhoid exhaustion is waiting for you if you let her wear out her strength. Perhaps when fairly secured in bed she will go to sleep; that is the best possible result if it comes without hypnotics; if not, perhaps food will bring it. There is an imperative demand for a good supply of easily assimilated nourishment. The patient usually takes it irregularly, but tact on the part of the nurse will generally ensure its being taken without forced feeding. Milk I have found about as well taken as anything, which reminds me to say here, entirely out of connection, that you need have little concern about the milk in the breasts; a broken breast is the rarest event in puerperal mania; conservative nature closes this drain on the system at once without your interference.

But you do not get sleep with the administration of food, or from the horizontal position in bed; what then? You have bromide of potassium, chloral hydrate, morphia, including subcutaneous injection of the latter. I would try them in full doses in the order I have named. If they succeed, and they often will partially at least, well; if not, do not overpower the strength by cumulative doses of narcotics, they will not generally give what you are seeking; but darken your room, keep your nurses back, maintain the horizontal position and dare to wait. It is wonderful how long sometimes the insane will live without sleep and still recover. Watch the strength; if that keeps up, and the tongue and mouth are not very dry, food is better than stimulants. You will not, however, send away all the brandy simply because the woman has recently been confined. Milk punch will sometimes give the sleep you are seeking. Convalescence will not necessarily follow sleep; sometimes there is a fair amount of sleep from the start, but the excitement goes on. In most of these cases, I have considerable faith in bromide of potassium, in doses of twenty grains, three times daily. I often give it with compound tincture of cinchona where there is lack of strength.

After you get the sleep, remember that a little time is almost always needed before much or any improvement appears; but no improvement showing after several days, you may then fairly feel that it is better to send to the hospital. Then state to the friends that the case is likely to be of some weeks' continuance, and when decided to remove, the

sooner it is done the better. Your patient can probably travel with less risk than a week earlier, and you will have the consolation of having given the case a fair trial at home, and in many cases will, I think, have the satisfaction of seeing it recover there.

TRICHIASIS.

By David Prince, M.D., of Jacksonville, Ill.

Reading just now the article in the Journal for June 25th, upon entropion and trichiasis, by G. Hay, M.D., of Boston, it occurs to me that something more or something different might be said.

The conditions are easily comprehended when we consider that the effects upon mucous membrane of chronic inflammation and ulceration are like the effects of severe burns which have been slow in healing.

The conjunctiva contracts as the trachomatous condition results in cicatrization. The palpebral fissure becomes shortened, and, as the inner canthus is fixed by the tendo-oculi, the outer canthus becomes drawn toward the cornea.

The palpebral cartilage, which is naturally capped to correspond with the shape of the globe, becomes still more concave, so that the margin of the cartilage has its edge turned in upon the eye. In addition to this, the ciliæ with their matrices become drawn in by the same contraction until they brush the cornea with every movement of the lids. Thus three pathological conditions have been produced:

1. Shortening of the palpebral fissure.
2. Incurvation of the cartilage, causing its ciliary margin to scrape the cornea.
3. Inversion of the eyelashes — all these conditions resulting from cicatricial contraction.

The removal of the cicatricial condition is, of course, impossible. The pathological condition of the mucous membrane is permanent.

The three malpositions must, in very bad cases, be remedied by three operations:

1. The operation of Des Marres, consisting in the removal of a strip of integument from the ciliary border of the lid, up to the eyelashes, or including some of them.
2. The operation practised by Dr. E. Percival Wright (of St. Stephen's Hospital, Dublin), which is a modification of the operation of Jaesch, modified by Arlt, consisting of an incision through the cartilage, muscle and mucous membrane along the lower border of the peeled strip already made. This permits the lower border of the cartilage to slide up until the eyelashes turn out, and the position is maintained by stitches of fine thread.
3. The palpebral fissure is permanently lengthened, and the incurved cartilage of the upper lid lifted off from the cornea by the procedure illustrated in Fig. 1. The strip of integument removed in Des Marres's operation upon the lower lid is not cut off, but is left with a wide base beyond the outer canthus. The integument is made to have a triangular shape. This triangle of integument is everted upon the brow, and the outer canthus is incised through all the fibres of the orbicularis muscle. A free dissection is then made behind the outer portion of the upper lid until there is plenty of raw surface to receive

the flap, which is then pierced by a silver wire armed with two needles, and both needles are made to pierce the integument below the outer part of the brow, from within outward. The flap is permanently fastened in its new position by twisting the suture over a compress.

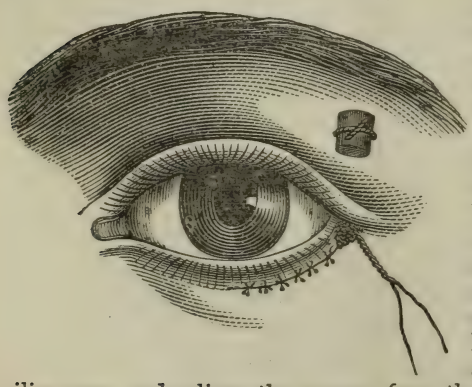
FIG. 1.



In the figure, a thread is seen over the wire, in order that the operator may have a choice of the method of removing the suture about two weeks afterward. The two ends of the sutures may be straightened out and removed in the ordinary way, or they may be cut off close to the skin, and the U-shaped stitch drawn out by the provisional thread.

The implantation of this flap of delicate skin from below the lower lid, in its new position behind the upper lid, renders the encroachment of the external canthus impossible. It also lifts the cartilage of the upper lid so that it no longer glides with its rough cicatricial surface upon the cornea.

FIG. 2.



This last is a circumstance of no small importance with reference to the clearing up of the opacity of the cornea and the future exemption from inflammation.

The lower lid very rarely requires the incision of the cartilage, because the cartilage is thinner and less often extremely incurvated. The application of sutures, as seen in Fig. 2, to close the space from which the flap has been removed, almost always suffices to turn the ciliæ over, and relieve the corneæ from their irritation.

If, in any case, this eversion of the lower ciliæ should not occur, the cartilage can be incised, and the margin caused to slide over as already described.

A case of extreme trichiasis has just been under observation, in which these three expedients required to be resorted to.

James William Finn, aged 26, says he has had sore eyes for three years. The ciliæ of all the lids lie flat upon the cornea. The cornea is partially opaque on both sides, more so upon the left. He can see to find his way about, and no more.

July 31st.—Operation under ether as already described.

Aug. 3d.—The greater part of the sutures of very fine cotton removed. There has been very little swelling, and the sight is already improved.

Aug. 7th.—The greatest improvement in the left eye, which was the worst one.

Aug. 10th.—The silver suture over the right eye removed by straightening it and drawing upon it as with an ordinary suture.

Aug. 12th.—The silver suture over the left eye removed by cutting off its ends close to the skin, and attaching an elastic rubber cord to the reserve ligature seen hanging upon the silver wire in Fig. 1.

Aug. 13th.—The patient was exhibited to the members of the Morgan County Medical Society.

Aug. 17th.—Went home capable of reading large print.

Very little deformity remains, and the cornea is free from any irritating contact.*

CASE OF FATAL POISONING BY AN OVERDOSE OF GELSEMINUM SEMPERVIRENS.

By J. T. Boutelle, M.D., Boston.

Aug. 20th, 1874.—Frank R., æt. 24. Works in a provision store. During yesterday afternoon had suffered from pains of a neuralgic character in the left shoulder, and occasional pain shooting from the fingers of the left hand upward to the shoulder. This pain became very severe at night, and his shoulder was rubbed with some "pain-killer" and a teaspoonful given internally. From this he experienced no relief, and shortly after midnight he begged for something to relieve the pain and make him sleep. There happened to be a vial of Fluid Extract of Gelseminum (Tilden's) in the house, which had been prescribed last fall for a child by the family physician, an irregular practitioner, and which he had assured them was a perfectly harmless remedy. At 1 P.M., he took a teaspoonful of this, and in about fifteen minutes repeated the dose. The pain was soon relieved and his eyes felt heavy, but in about half an hour he began to complain of choking, and soon arose struggling for breath, pushing his fingers into his throat as if trying to tear it open. He staggered, reeling from one room to another as though intoxicated, and in a short time after these symptoms came on, he threw himself upon the floor and became unconscious. This is the history of the case as I received it from his family.

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* An account of the third element of the operation just described was first published in the American Journal of the Medical Sciences for October, 1866, p. 385, and subsequently in a monograph on Plastics, published by Lindsay & Blakiston, Philadelphia.

I was summoned about 3.45 A.M., and reached the house at 4 A.M. Found patient moribund, respiration gasping, three or four per minute, pulse rapid and feeble. He was totally unconscious and could not be roused; pupils dilated, not responding to light, and could be touched without producing any contraction of the lids. Muscles relaxed, lower jaw drooping. Skin moist, extremities rather cold.

As the patient was so far gone, as the dose had been swallowed three hours before and was probably all absorbed, and as there was such complete insensibility, I considered it useless to try emetics. I laid him upon his back with head upon floor, dashed cold water upon face and chest to excite respiration. Gave brandy and water in small quantities frequently, and five grains of carbonate of ammonia every five minutes. Mustard to spine and friction upon extremities. The respirations became more infrequent, and the pulse grew slower and weaker. Artificial respiration was kept up for half an hour but without avail, and he died at 4.45 A.M. No convulsions at any time.

Autopsy.—Five and a half hours after death. Body well nourished, rigor mortis marked. The blood was very fluid and dark colored, and showed no tendency to coagulate or to turn red upon exposure to the air, even after standing in a large tub for two hours. Heart, lungs, spleen, kidneys normal. Liver dark colored and contained much fluid blood. Stomach contained four ounces of light colored fluid mixed with glairy mucus. Its internal surface was deeply congested and marked by tortuous dilated vessels. Intestines normal. Brain rather pale. Sinuses not congested. The internal substance of the cerebral lobes was dotted here and there with small red points, but these were not sufficiently large or numerous to be considered of much pathological importance. No collection of fluid in ventricles.

Rupture of the Biceps.—Assistant Surgeon Brook, of the Army, reports the following case in the *Philadelphia Medical Times*:—

A discharged soldier, who was an applicant for admission to the Asylum for disabled Volunteers, presented (I forget in which arm) a deep depression almost in the middle of the belly of the biceps, the muscle having evidently been ruptured and the torn ends remaining separated by an interval of at least an inch. There seemed to be no muscular connection between the torn ends. The man stated that while one of a party carrying a small house or sentry-box he suddenly felt something give way, and the arm became comparatively powerless. The accident occurred a considerable time before I saw him—I think over a year—and the power of flexing the fore-arm was still greatly impaired.

The Function of the Uvula.—Dr. Horace Dobell writes to the *British Medical Journal* of Sept. 5, 1874:—

"Looking, to-day, into the pharynx of a patient suffering from a severe nasal catarrh, I saw the watery secretions from the back of the nose pouring down in a continuous stream from the tip of the uvula on to the dorsum of the tongue. It was evident that they were collected to this point from all the surrounding parts, and that the uvula acted as a conduit to bring them to the front of the epiglottis, whence they might be safely carried down the throat by repeated acts of deglutition; whereas, had it not been for the uvula, they would be liable to drip behind the epiglottis, and thus cause constant discomfort by getting into the larynx. This very simple but important function of the uvula has not, so far as I am aware, been noticed before, notwithstanding all that has been written about this odd little organ."

Progress in Medicine.

REPORT ON DISEASES OF THE CHEST.

By F. I. Knight, M.D.

Pneumatometry.

The following account of Waldenburg's experiments in pneumatometry is taken from Guttenaun's Untersuchungs-Methode, second edition, 1874. They are interesting, particularly with reference to the use of the pneumatic apparatus, which we shall take up in this present report.

The measurement of the respiratory pressure, hitherto only employed in individuals in health (Valentin, Donders, and others), has also been employed by Waldenburg as an aid in the diagnosis of diseases of the lungs. The mercurial guage used by Waldenburg consists of a glass tube, open at both ends, bent into two arms, and attached to a wooden stand, each arm being about eleven inches high; one arm (a) is covered with gauze to keep out the dust, and the other (b) is bent over horizontally, and is introduced into a long rubber tube, which ends in an extremity of horn, adapted to the mouth or nose. On both sides of the stand, corresponding to the two arms, is a millimetre scale, the zero point being in the middle of each arm, and up to these points the tube is filled with mercury. The test can be applied either through the mouth or one nostril, but evidently these must be closed tightly, except the communication through the tube. On inspiration, we see the mercury rise in b, and fall in a; on expiration, the reverse. The amount of these oscillations can be read off on the scale.

The results, during both acts of respiration in health, vary considerably, but the expiratory pressure is constantly greater, or at least not less than the inspiratory, the difference on ordinary, not forced, breathing, being usually from 5 to 30 millimetres in favor of the former. (This coincides with the results of Donders and Valentin.) The results of deep inspiration in healthy, full grown men varied from 70 to 100 millimetres; of strong expiration, from 80 to 120; in women, inspiratory pressure from 30 to 80; expiratory from 40 to 90.

Diseases of the respiratory organs affect the guage in three ways: 1. By diminution of the expiratory pressure alone, the inspiratory remaining about normal. 2. Diminution of the inspiratory pressure, the expiratory remaining about normal. 3. Diminution of both. An absolute diminution of pressure is considered to exist in those cases where it falls below the minimum given above; in strong persons, however, the mean figures are taken as a standard by which to judge pathological variations; before all, however, comes the comparison of inspiration with expiration.

The experiments of Waldenburg show a diminution of expiratory pressure in pulmonary emphysema (far below the height of the inspiratory force, which is normal or may even be increased); a diminution of the inspiratory force (only a little of the expiratory) in commencing pulmonary phthisis; in advanced phthisis the expiratory pressure is diminished also, but always in less degree than the inspiratory. The diminution of the expiratory pressure (or the expiratory insufficiency) is due to the diminution of the elasticity of the lung; the in-

spiratory insufficiency in phthisis is due to the diminished expansibility of the lung, both on account of the thickening of the parenchyma and atrophy of the inspiratory muscles.

It is worthy of notice that no fixed relation was found between the results of spirometry and pneumatometry, the pneumatometric figures being sometimes relatively high in cases of low vital capacity (as indicated by the spirometer), and *vice versâ*.

Eichhorst *(Vierteljahrschrift für die Praktische Heilkunde*, 1873*)* obtained similar results to those of Waldenburg. The expiratory pressure was always diminished in pulmonary emphysema, chronic bronchial catarrh, bronchial asthma, in pregnancy, and in cases of tumors or exudations in the abdomen. In phthisis, there was at first inspiratory, afterwards, also, expiratory insufficiency. In pneumonia and phthisis, both inspiratory and expiratory insufficiency.

[To be continued.]

Treatment of Vulvar Pruritus.—M. Hardy frequently uses the following:—

℞. Hydrarg. chlor. corros., 1 gramme.
Aquæ destil., 100 "
Alcohol, q. s.

M. A spoonful in a glass of warm water. Avoid rubbing the parts during its application.

In the vulvar pruritus which so frequently accompanies pregnancy, Dangon uses the following formula:—

℞. Zinci oxidi, 4 grammes.
Sodæ boracis, 2 "
Cerati simplicis, 15 "
Ol. amyg. dulcis, q. s.
Morphiæ muriatis, 20 centigrammes. M.

Bazin prescribes the following liniment:—

℞. Liquor calcis, 30 grammes.
Glycerin, 30 "
Ol. amyg. dulcis, 60 " M.

La France Médicale; New York Medical Journal.

An Ant-Cloud.—On the 18th of August, Cambridge was visited by an ant-cloud, the rare phenomenon occurring about six o'clock in the evening, and causing considerable annoyance to persons in the streets, the ants falling in countless millions about the pavements, and in the gardens and college courts. There were three kinds of ants, the great majority being the small winged male. Some of the larger ones were nearly half an inch long. Correspondents writing from Putney, Lewisham, Eltham, Southall Station, Ealing, Bexley Heath, &c., report that they observed in the roads and foot paths vast quantities of winged and wingless ants on the same evening.—*Medical Press and Circular.*

The Use of the Catheter after Urethrotomy.—*(Milit. Med. Jour.*, 1873, vol. cxviii. p. 37).—In six cases upon which Dr. Kaposi performed internal urethrotomy, he was prevented from introducing the catheter after the operation, as he had intended doing, and from the results which he attained he is satisfied that it is not necessary to use catheters or bougies in these cases until several days after the operation. He thinks that by thus postponing the introduction of these instruments, the urethra escapes much irritation, and the patient much pain, and that there is no danger of the stricture which has been divided reuniting.—*Philadelphia Medical Times.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC'Y.

Aug. 10th, 1874.—*Cancerous Tumor over the Sternum.*—Dr. DRAPER reported the case and exhibited the specimen.

E. P., a female servant, aged 51, unmarried, entered the City Hospital June 9, 1874. She reported that she had been ill two weeks, a constant pain in the left hip and in the loins obliging her to give up all work. The pain sometimes extended to the left knee. The appetite was impaired and the bowels were constipated. The pain was the only symptom which attracted special attention, and to the relief of that the treatment was mainly directed. She had various sedatives and narcotics internally and anodyne applications externally. The pain was apparently that of chronic rheumatism. The left knee, which was the joint most affected, was swollen and tender. The hip on the same side was stiff and painful, but the patient's principal complaint had reference to her loins, the pain there being constant. Under iodide of potassium, in doses gradually increasing till a drachm was taken daily, the severity of the symptoms appeared to yield somewhat and the patient sat up without much discomfort. An opiate was still required to secure sleep at night.

Meanwhile the general condition of the patient improved. Her appetite was less dainty and her nutrition did not suffer; except constipation, which was readily relieved by laxatives, there was entire absence of abdominal symptoms.

July 15th, less than four weeks before the patient's death, there was first noticed a nodular swelling at the left sterno-clavicular articulation. Its size was that of an English walnut. It was painless and without tenderness. The patient invariably made light of it as the least of her troubles. Within a week, there was a manifest increase in the size of the tumor. Meanwhile, the patient began to fail. The rheumatic pains did not recur, but there was progressive prostration. Coincidently, a cough developed, with free expectoration of frothy mucous sputa. The resonance on percussion was normal; but on auscultation there were abundant, coarse, moist, mucous râles in both lungs, though relatively more copious in the right lung.

Since the first of August, the patient made no complaint of pain, but only of prostration. The tumor over the clavicle grew rapidly but painlessly. It was firm to the touch, nodulated and immovable. There were no other nodes elsewhere on the body.

Aug. 5th, there was a very alarming attack of dyspnœa, which passed away after the application of a steam bath and stimulants. The next day the voice became hoarse, intermittent and stridulous, and continued so till death.

The later symptoms were those of progressive exhaustion. The tumor grew till it appeared of the size of a large lemon. Death occurred August 9th, twelve weeks after the beginning of illness and a little more than three weeks after the manifestation of the single external sign of the extensive disease disclosed by the autopsy.

The examination discovered very general development of cancer. The growth whose course was watched during the progress of the

case was found to have invaded the manubrium of the sternum and the adjacent inner extremity of the clavicle, completely absorbing the bones in its way and appearing on the inner aspect as a well defined node, which must have pressed on the trachea. The substance of the tumor was hard, white and uniform.

On the inner surface of the right parietal bone, a nodule of the disease had penetrated the inner table and diploë, an injected point in the pericranium marking the position externally.

The right pleura was thickly strewn with nodules, varying in size from the head of a pin to a bean. The disease appeared on both surfaces of the pleura, and at the apex where the nodules were most abundant the surfaces were adherent. Two ribs on each side had a single node at about their centre; the bony tissue had been so far displaced here that the ribs bent as with an ununited fracture. The bronchial glands were enlarged and indurated. The left lung was healthy. The right lung contained many deposits of the disease around its bronchi.

The liver had about twenty of the nodules in its substance and on its surface, the largest being of the size of a filbert.

The peritoneum was everywhere invaded, the disease appearing as small, flat, disseminated, and colorless nodules thickly studding the otherwise healthy membrane. The omentum and mesentery showed the growth most abundantly. The mesenteric glands were not involved.

The stomach, intestines, kidneys, uterus and mammæ were normal; the brain and heart were likewise apparently healthy.

Dr. Draper remarked that the rapid development of the disease and the almost entire absence of symptoms pointing toward the real condition were interesting features of the case.

Dr. Wheeler said this case was interesting from its great rapidity, it being the shortest in duration of any case that had ever come under his observation. He had seen a case result fatally in six months, in a boy, where the primary disease was found to be in the left kidney.

Pyelo-Nephritis.—Mr. Rand, of the Chelsea Marine Hospital, reported the case and showed the specimen.

Patient entered U. S. Marine Hospital Nov. 11, 1873. Æt. 25. At time of entrance was quite stout. During the three weeks previous to entrance was exposed to cold and wet on board of a water-logged ship. Had pain over pubes and along the ureters. Micturition frequent, causing great pain, often followed by a few drops of blood. Also had bronchitis. No history of gonorrhœa. On November 20th, nine days after entrance, complained of pain in lumbar region. The pain was severe at times, especially towards the latter part of the disease. In February, four months after entrance, pain in left back more severe. During February, nausea and vomiting began and occurred frequently. During illness, especially towards latter part, patient had occasional chills, and soon after entrance began to lose flesh, and at time of death, June 29th, was a mere skeleton. Micturition frequent during illness. Examination of urine gave the following results: color, pale yellow; specific gravity, 1006–1010; reaction, acid; albumen, abundant; casts, never found. Pus always present; quantity variable, but always considerable.

On March 7th, five months after entrance, sediment contained pus; epithelial cells from pelvis and from kidney.

On June 26th, three days before death, epithelial cells from pelvis and kidney, containing fat drops, were found in the sediment; also, for the first time during course of the disease, a few red blood globules.

June 28th, patient very weak; has severe headache; extremities cold. On 29th, A.M., died.

Autopsy, June 30th.—Rigor mortis well marked; body, much emaciated; head, not examined. Pleuræ adherent on both sides; adhesions recent; upper lobes of lungs gave appearance on section of tubercle, but on closer inspection the appearance was found to be due to peribronchitis; other parts of lungs healthy. Heart pale, but healthy. Liver and spleen, healthy. Bladder was of normal size. Mucous membrane thickened and covered by old inflammatory product. Ureters much enlarged in diameter; mucous membrane in the same condition as that of the bladder, though somewhat discolored. Kidneys somewhat enlarged; capsules non-adherent; appearance pale. Numerous nodules of various sizes on surface, on section. Mucous membrane lining pelvis and calyses thickened and discolored and covered by old inflammatory product. Parenchyma extensively destroyed at two spots in the right and at one in the left kidney. Cortical portion covering these spots, very thin. There were numerous small abscesses throughout the parenchyma of both kidneys.

Dr. Fitz said that one interesting fact in this case was that, while the disease had evidently extended from the bladder upwards, the urine having been always acid, proved that this extension could not be due to bacteria, which had entered the bladder, working up from there into the ureters, as is claimed by Traube to be the case. This fact, also, of the acidity of the urine would account for the unusual absence of any calcareous deposits on the rough and diseased mucous membrane.

Aneurism of the Arch of the Aorta; decided Relief of Symptoms under large doses of Iodide of Potassium.—Dr. Abbot first showed this patient to the Society on March 24th, 1874. He had entered the Massachusetts General Hospital on March 4th, having at that time a tumor larger than a hen's egg above the sternum, and behind the sterno-cleido-mastoideus muscle, which was so tender that it was with great difficulty that a cast of it was taken. All the large arteries given off from the arch, with the exception of the left radial, were so occluded that no pulsation could be felt. Dr. Knight, who examined him at this time with the laryngoscope, found evidence of paralysis of the left recurrent laryngeal nerve. From the patient's history of his case, it appeared that he had suffered from pain, especially in his shoulders, for months before the tumor appeared. He was put on fifty grain doses of the iodide of potassium, and in a few days the tumor began to diminish in size, and the pain to yield. He was again shown to the society on April 13th, when the tumor was decidedly smaller, as shown by comparison with the cast taken March 4th, and the tenderness had diminished to such an extent that quite free handling of the tumor gave no pain,

Dr. Abbot spoke of another similar case, where the improvement under a course of iodide of potassium, though not so marked, was very decided, and the patient died of some other disease. It had been claimed that in these cases the favorable action of the iodide

was due to its favoring coagulation, which has however since been denied.

Dr. Abbot's theory on the subject was that it acted by checking the inflammatory action (evidence of the existence of which we have in the pain, swelling, &c.), and favoring the absorption of the morbid products. He did not think that in these cases the mere fact of rest and quiet in a hospital could have been the cause of the improvement, as both these patients had been confined to the house for some time previous to entrance.

In neither case was there any syphilitic history or symptoms of iodism. In answer to a question, Dr. Abbot said that the tumor felt like a sac, and not like a solid body, and that the occlusion of the large arteries springing from the arch would prove that the arch itself must be the seat of the disease.

The patient, for a week from this date (April 13th), continued to improve, and left the hospital for his home. He began to grow worse, and in six weeks reëntered the hospital, suffering much pain; but the tumor had not again increased in size. He died suddenly on the 16th of June, and, on June 22d, Dr. Abbot showed the specimen to the society. It proved an aneurism of the arch, the arteries from which were occluded and in which a firm coagulum was found. Two of the upper dorsal vertebræ were eroded, as were also the sternum and clavicles. The sac had communicated with the left pleural cavity at a point where the lung had formed adhesions. The conclusion which Dr. Abbot had come to with regard to the action of the iodide, was that it simply relieved pain, and that in this case, for a time at least, it did so completely. Cases are reported where the natural calibre of the artery is restored by means of a thick coagulum, and Nélaton reports the case of a lady, where the iodide was given to relieve pain, where the drug seemed to have a marked effect on the aneurism.

Dr. Fifield spoke of a case of aneurism of the aorta, in a patient, with a specific history, where the iodide had a very beneficial effect. He also reported the case of a man to whom he was called one night, and found him unable to speak or swallow. Respiration was free and pulse was good. Percussion showed great tenderness over the aorta, but no murmur could be heard. The next day the patient was all right. In spite of the absence of marked symptoms, he could not help thinking that this might be a case of aneurism.

Bright's Disease, Endocarditis and Aneurism of the Coronary Artery.—Dr. Curtis reported the case and showed the specimen.

Thos. H., æt. 18, coachman. Entered hospital February 15, 1874. Family history good; general health excellent till present illness. One year ago was kicked by a horse in the chest. Did not suffer much at the time, but has had palpitation at times since. Three weeks ago took cold; had sore throat and stiff neck, but continued to work. One week ago, when waking in the morning, found his feet and ankles swollen. This increased till it extended all over the body. No vomiting till day before entrance.

At visit, some dyspnœa; anasarca complete and excessive; auscultation of lungs in front, normal. Some dulness over left side and lower quarter left back, with distant respiration. Occasional crepitant râles at base of both lungs; cardiac dulness apparently much increased; loud murmur with first sound at base heard all over chest; abdomen

distended with fluid; urine acid, 1021; albumen one-third; casts, epithelial and granular, the former predominating; pus cells and renal epithelium.

March 6th.—Urine 1014; albumen one-third; granular and a few hyaline casts; renal epithelium.

The anasarca continued in spite of following treatment: Tincture ferri chlor.; bitart. potass.; pulv. jalapæ co.; vapor baths; tincture digitalis; oleum juniperi inhaled; leeches and wet cups to kidneys.

March 23d.—Past three days has complained of headache and is drowsy.

March 28th.—Dulness and distant respiration in both backs; most marked on left.

March 30th.—Dull and stupid at visit.

March 31st.—Patient had uræmic convulsions, epileptiform in character, this evening, and died.

Autopsy, fifteen hours after death, by Dr. Bolles. Some rigor mortis; body very œdematous. There were forty ounces of serum in the left pleural cavity and a small quantity in the right; this latter, however, was nearly obliterated by old adhesions. Lungs œdematous, the left one compressed. Heart contracted, of good color and firmness and of the usual size. Right side and mitral valve normal. Aortic valves insufficient, as shown by experiment; they were ragged and very much thickened at their borders by irregular vegetations, which very materially diminished the calibre of the vessels at this place. Two of the valves had become united by distention or disappearance of their partition. The coronary artery was enlarged, and there was seemingly an aneurismal dilatation of it. This, when cut open, was partially filled with soft fibrinous material. There were eighty ounces of clear fluid in the abdominal cavity. Liver slightly congested passively. Nothing remarkable about the intestines. Kidneys at least twice the normal size, soft, pale and ash-colored, excepting the medullary portions, which were red. Tubules almost indistinguishable. The cerebral pia mater was everywhere very much congested. Over nearly the whole right hemisphere were extravasations of blood filling the sulci and staining the whole surface so as to nearly hide the convolutions. Along the right fissure of Sylvius and over the base of the brain from the pons forward, the clots measured from one twentieth to one tenth of an inch in thickness. Brain substance good; no unusual appearance in ventricles. In the right hemisphere, lying outside of, on a level with, and parallel with, the lateral ventricle, was a large clot, one by two and a half inches in diameter, soft, mixed gray and red, and recent; the adjoining brain tissue was slightly softened. There was less hyperæmia, and there were no extravasations over the cerebellum.

Retinitis Pigmentosa.—Dr. Hasket Derby, by means of the fixed ophthalmoscope, exhibited to the Society a case of the above-mentioned disease. The patient was a young man of 19, who could not see clearly in the day time and hardly at all towards night. Externally, the eyes were normal, but the ophthalmoscope showed extensive deposits of pigment in the retina. The course of this disease, Dr. Derby stated, is to gradually increase, and it almost always results in total blindness before the age of 50. The deposit of pigment is in the retina, but whether it comes from the retina or choroid is a disputed point. Nearly one half

of the cases of this disease are found to be the offspring of blood relations, and it is also not uncommon in idiots and in persons having supernumerary fingers and toes. As corroborative of the influence of intermarriage of blood relations in producing this and analogous trouble, Dr. Derby read the following family history from his note book:—

Mr. N., 41 years of age, of healthy parentage, himself a tall, strong man; married, eighteen years ago, to his first cousin; both of dark complexion.

1st child.—Boy, 16 years of age; dark complexion; deaf-mute; retinitis pigmentosa, with concentric limitation of field. Vision = $\frac{9}{20}$; general health excellent. An intelligent, very good natured boy.

2d child.—Boy, 14 years old; deaf-mute; high degree of amblyopia, in consequence of white atrophy of both optic nerves; peripheric patches of choroiditis atrophica; general health good; violent temper; keen intellect.

3d child.—Girl, 12 years of age; healthy child.

4th child.—Boy, 8 years old; very deaf; talks very distinctly; good natured, but rather dull; understands the father without any difficulty, but is said to be "uneasy" when spoken to by mother. Vision not to be ascertained accurately; no abnormities to be discovered by ophthalmoscope.

5th child.—Girl, 4 years of age; healthy, with exception of clump feet.

N. B.—The mother is a perfectly healthy woman; never had any miscarriages.

"The London Monthly Review of Dental Surgery" has a fitting and just tribute to the character, talents and professional ability of the late Dr. Thomas B. Hitchcock. Few among our young professors have attained that measure of professional superiority that is accredited by the leading organ of dental surgery in Europe to his memory. We quote the following paragraph from the Review:—

"An enthusiast in all he undertook, he has won for himself the highest esteem of the medical profession in Boston. Now that he has gone, it will indeed be hard to fill his place, for few such as he are to be found in the ranks of our profession. Honest of purpose, fearless of speech, and kindly of heart, he had won the heart and admiration of every one with whom he came in contact. Now that he has died in the prime of his life and in his full vigor, none will be more missed or more sincerely mourned. It will indeed be long before those who have lost in him a warm hearted and dear friend will cease to recall the memory of pleasant hours spent with Dr. Hitchcock."

A Lost Case.—A physician in Vienna, Wis., who recently sued a man for services rendered in the treatment of his son for fracture of the thigh bone, lost his case. The local paper says that, after the plaintiff had proven his case and rested, counsel for the defendant moved for a nonsuit, under chapter 95, laws of 1867, which in effect provides that no person practising physic and surgery shall be allowed to collect fees for services rendered unless he is a graduate of some medical college, or is a member of the State or some county medical society. The lawyer claimed that the plaintiff's duty was to prove he was a graduate, or was a member of one of the societies mentioned, and inasmuch as he had not done so, the defendant was entitled to a nonsuit. The motion was sharply resisted by the counsel for the plaintiff, but the defence sustained the theory by authorities, and the Justice dismissed the case.—*New York Medical Record.*

Bibliographical Notices.

A Practical Treatise on the Surgical Diseases of the Genito-urinary Organs, including Syphilis. By W. H. Van Buren and E. L. Keyes. New York: D. Appleton & Co. 1874.

The subject-matter of this new work comprises, in one volume of 672 pages, the surgical diseases of the genito-urinary organs and venereal diseases. The literature of each of these branches of medical science was already rich, and, by recent publications, had been made to keep pace with the latest advance of our knowledge. But, until the appearance of this treatise, we did not possess any single work which covered the whole ground of genito-urinary and venereal surgery, and it certainly seems advantageous thus to bring together and, as it were, confront diseases which, by their common locality and origin, are likely to give rise to special difficulties of diagnosis and of treatment. The treatise now before us is most admirably contrived to satisfy this want; notwithstanding the vast extent of the subject-matter, the whole ground is gone over in the most thorough and systematic manner; every detail receives attention in exact proportion to its practical importance, and this subordination of secondary to important points is strictly and evenly maintained throughout. But, notwithstanding the necessity for succinctness in a work in which so much matter had to be condensed into the small space afforded by a single volume, and in spite of the thoroughly practical nature of the treatise, full justice is done to the most modern research, and the book is fully up to the present state of medical science in all the branches of which it treats. Although all the leading and most recent authors are consulted, it cannot with any justice be considered as a mere compilation, or as wanting in originality, for the authors are themselves entitled to great authority, and continually give their readers the benefit of their own discrimination and experience. The style in which the book is written is at once concise and clear; diagnostic tables are frequently used to epitomize descriptions of disease, and by contrast to make clinical distinctions more striking; when necessary, the subject of treatment is also condensed into *summaries*, which serve to impress leading principles upon the mind of the reader and make the book easy to consult. Well-executed woodcuts, 134 in number, illustrate the matter, and fifty reported cases are incorporated into the text, serving to exemplify rare forms of disease or to corroborate the views of the authors.

Out of the vast array of details which offer themselves to the reader for consideration in so comprehensive a treatise as this, the space at our disposal will only allow us to touch upon a few points of special interest.

In connection with *stricture*, the use of tunnelled instruments is advocated for cases where catheterism is difficult, and due credit is given to Dr. Gouley for perfecting and extending the application of the principle originated by Prof. Van Buren. In the treatment of stricture, an important point is the proscription of the *tied-in catheter* after operations in which the wall of the urethra has been incised, whether from within or from without. Until recently, it was generally thought indispensable to tie in a catheter for twenty-four, thirty-six or forty-eight hours after every operation in which the mucous membrane was cut through or torn (internal urethrotomy, divulsion, external perineal urethrotomy). Such is still the practice of, among others, Sir H. Thompson, Maisonneuve, Guyon and Voillemier; Holt, on the other hand, has long renounced tying in a catheter, upon the supposition that, in his operation, the submucous deposit alone is split, the mucous membrane escaping laceration. First introduced by Prof. Van Buren, the practice of dispensing with the tied-in catheter has gained ground in this country; the instrument is only to be retained in a small number of cases of difficult catheterism, comprising some cases of tight stricture, when a few days of continuous dilatation precede the usual treatment by bougies, some cases of rupture of urethra by external violence,

and cases of hypertrophy of the prostate where catheterism is difficult and the surgeon is not at hand.

Gradual dilatation is recommended as the most generally useful treatment of stricture, unless complicated, resilient or traumatic; for these last cases, external perineal urethrotomy is the best treatment. To apply dilatation, conical steel sounds with a small curve are advised, preferably to soft instruments, for large strictures, superior in calibre to number 9 of the American scale (15 French); they must be used with great gentleness, at intervals of three, five, six or even seven days; for strictures of a less calibre, soft instruments are preferable. For cases other than those above enumerated, an internal operation is advisable: internal urethrotomy for all strictures situated in the pendulous portion of the urethra, divulsion for those more deeply situated. Continuous dilatation is badly tolerated and rarely useful. The limit of dilatation is subordinated to the normal size of the urethra, which is variable between numbers 16 and 20; the calibre in each individual case must be judged of by the size of the meatus, which may, however, be the seat of contraction, whether congenital or acquired. The necessity for the prolonged continuance of an after-treatment, to be carried on by the patient himself by means of bougies, is insisted upon. "In this way, in some cases, the use of instruments may be gradually abandoned; in the majority, it will have to be continued indefinitely, at intervals varying from a week to several months. In this way does the cure become gradual. The surgeon is responsible for the cure only on condition that the patient carries out this plan; or, rather, the patient is responsible for the permanence of his own cure, and this he must be made distinctly to understand." We are glad to quote this assertion by such competent authorities of the radical incurability of confirmed stricture, in opposition to the renewed pretensions to radical cure brought forward daily by the inventors of new modes of treatment and of new instruments.

Stone in the bladder is to be dealt with by lithotomy or lithotrity, the respective indications given being those generally received. For the cutting operation, lateral lithotomy, with Blizard's probe-pointed knife, is advised for the majority of cases, when a good-sized opening is required; and it is advised that moderate incision of the prostate, not exceeding five eighths of an inch, be supplemented, if necessary, by dilatation of the opening thus made.

The subject of *lithotrity* is well treated; sittings of three to five minutes' duration are advised, at intervals of three to five days; this seems a liberal allowance of time for each sitting, compared with the best European practice. The author of this notice has often seen Sir H. Thompson operate, and has rarely seen him exceed half a minute, except in cases of prostatic obstruction, when extraction of *débris* was performed under chloroform; during this short time, he would seize and crush three or four times. Guyon, the successor of Civiale at the Necker Hospital, never allows his lithotrite to remain in the bladder over three minutes. Still, it is perhaps better to err on the side of slowness with gentleness than to seek rapidity with a risk of violence. Our authors wisely advise that the preliminary injection of water be dispensed with, the patient being made to retain his urine before the operation.

The important subject of *syphilis* is very completely and wisely treated. Our authors adhere rigidly to the dualist doctrine, recognizing no connection between syphilis and chancroid. Their views on treatment are very orthodox; mercury must be given persistently, for a year or eighteen months, alone or in conjunction with a tonic treatment, after which duration of time, the "mixed treatment," consisting in the use of mercury combined with iodide of potassium, is to be resorted to for another twelvemonth. The administration by the mouth is the mode of treatment recommended as most acceptable to the general patient, and most likely to be persevered in; inunction or fumigation are reserved for temporary use during violent outbreaks of the disease; the proto-iodide is, in the opinion of our authors, the best form in which mercury can be used in the majority of cases. When the mixed

treatment is to be applied, a solution of the biniodide of mercury, with iodide of potassium, is advised. The late and especially the gummy manifestations are amenable to treatment by suitable and *sufficient* doses of iodide of potassium, which drug, as the authors justly observe, does not seem to have any marked curative virtues, though powerful over the lesions which are symptomatic of the late forms of syphilis.

In conclusion, we will say that the chapter on "Maladies involving the Genital Function" (including impotence, spermatorrhœa, self-abuse, &c.), though short can hardly be too much praised; it is written in a most wise and liberal spirit, without any affection towards or away from cant of any kind. On this slippery ground our authors have kept their footing most admirably; the dictates of morality are clearly shown to coincide strictly with those of hygiene. The consequences of unnatural or depraved sexual feeling and excess are exhibited, and the degree and nature of the "moral" therapeusis which often succumbs to the medical adviser is made clear.

T. B. C.

On the Value of High Powers in the Diagnosis of Blood Stains. By Joseph G. Richardson, M.D., Lecturer on Pathological Anatomy in the University of Pennsylvania, and Microscopist to the Pennsylvania Hospital. (Extracted from the *American Journal of the Medical Sciences* for July, 1874.) Pp. 9.

In the essay before us, Dr. Richardson maintains that the red blood corpuscles of a human being can, *with certainty*, be distinguished from those of an ox, horse, or sheep, in a stain which has become thoroughly dried, and, also, that by the means of an artificial serum, the dried globules can be restored to very nearly their original size.

He uses a one-twenty-fifth inch immersion lens, which gives, with the micrometer eye-piece employed, a magnifying power of 1250 diameters. With these lenses he was enabled to distinguish between three specimens of dried blood, one of which was from a sheep, one from an ox, and the third, human blood. The average measurements of these, after having been moistened, were, in the case of the human blood, 1–3407th; of the ox, 1–4694th; and of the sheep, 1–5828th of an inch. These measurements are very nearly the same as those of the *fresh* corpuscles of man, the ox, and the sheep, which are respectively 1–3200th, 1–4267th, and 1–5300th of an inch, Dr. Richardson having in previous investigations "demonstrated a disposition to *slight* contraction in the corpuscles of blood stains which have been dried and moistened again."

His treatment of the stain is as follows:—

"Some small particles * * * were broken up into a fine dust, with a sharp knife, upon a slide, and covered with a film of thin glass. A few drops of the ordinary three-quarter of one per cent. common salt solution were then successively introduced at one margin of the cover, and removed from the opposite edge, as they penetrated thither, by a little slip of blotting paper, thus washing away the coloring matter from the tiny masses of dried clot. When these particles were nearly decolorized, a drop of aniline solution was allowed to flow in beneath the cover, and, after remaining about half a minute, was in its turn washed away, and its place supplied by a further portion of weak salt solution."

A specimen of dried blood, examined after an interval of five years, showed that no contraction had resulted from age, the average of ten measurements being 1–3425th of an inch, while the average, five years before, was 1–3474th of an inch.

E. S. W.

BOOKS AND PAMPHLETS RECEIVED.

Hypodermic Injections of Ergot in Post-partum Hæmorrhage. By P. C. Williams, M.D., of Baltimore. 1874. Pp. 4.

Transactions of the Medical Association of the State of Alabama. Twenty-seventh Session, 1874. Montgomery, Ala. Pp. 421.

Boston Medical and Surgical Journal.

Boston: Thursday, October 1, 1874.

When Harvard adopted her present advanced system of medical education, the introductory lecture, which is still a feature everywhere else, was abandoned. We are not quite clear whether this change is an improvement or not. We have little regard for the "glittering generalities" which too often form the bulk of such addresses; but we have known some that have been followed by marked results, and we believe that those who are just about to begin the study of their future profession, who for the first time in their lives are engaged in what they know to be a serious undertaking, are the better for a few words of plain practical advice. It is true that, with the new system, such advice is less necessary than elsewhere; for the course is so laid out that the student, if he be conscientious, has but little choice of occupation; still, a good deal might be said. Although so much more is required, there is no doubt that the course is easier, as well as far more profitable, than formerly. All that is necessary is method and application. If the student give each branch its proper share of attention, he has ample time to become fairly proficient in it; but he should be warned not to give too much time to studies that are more to his taste than to others. It requires more experience and a greater breadth of knowledge than falls to the lot of the student to go far in any one direction, without giving rise to some counterbalancing deficiency in another. His object should be to obtain a good general knowledge of the various branches, and, if he do this, he will be sure, later in life, to find himself better fitted to prosecute any special line of inquiry than if he had devoted himself to it during student life, to the exclusion of others equally important. Apart from this, it is to the neglect of distasteful studies that is to be attributed the occasional failures of particularly gifted students.

It gives us great pleasure in perusing the reports of the Southern medical societies, to notice the activity and independence that the profession exhibits under the most discouraging circumstances. We have just received the Annual Report of the Alabama Medical Association, and, leaving to another time the critical analysis of the papers read, we would now call attention to some of the proceedings. The Report of the Board of Censors begins as follows:—

"If we look around us, we find at work, everywhere in our unfortunate country, the agents of disorganization and destruction. Wide-

spread and paralyzing demoralization pervades all the ranks and classes of our social and political communities. The peculiar civilization, which was slowly taking definite shape amongst us, has been broken into fragments by the tremendous revolution through which we have passed; and, whether we will or not, it devolves upon us, out of these fragments, to build up another civilization for the times in which we ourselves live, and for the future that is to come after us. Whether we build wisely and well, or whether our work shall prove to be far otherwise than laudable and beneficent, depends very much upon ourselves. It is true that many duties and obligations press upon us, and that the burden is hard to be borne. But shall we for this reason lose heart and hope, and lie down by the roadside to perish like dumb-driven cattle, in ignominious apathy and despair? Nay, verily. We are men, and we will bear ourselves like men, with manly courage and equanimity. To fold our hands passively and take things as they come —this is not our mission; but to shape events for ourselves, and to compel circumstances to pursue such course as we may believe to be wisest and best."

The Board recommends pushing a bill, which apparently had previously failed to pass the legislature, for the formation of a State Board of Health, to consist of the Medical Association, the county societies being local boards under the general one, and providing that the medical societies should appoint the health officers, and that the legal authorities should fix their salaries. The censors also urge a bill intended to discomfort irregular practitioners, and to protect the profession and the community against them. Though some points appear to us to be open to criticism, the general tendency of both these bills is excellent. The address of the president is an able plea for attention to sanitary science; he points out that it is the duty of medical men to do all in their power to diminish mortality among the young, by which a part of the potential promise of the race is cut off. We most heartily wish the Association success in its undertakings. It is by the merits of the individual State Societies that the profession of the whole country is to be judged, and it is from them, when the American Medical Association shall have fallen by its own rottenness, that we can hope to establish something creditable in its place.

SOME OBSERVATIONS ON THE LOCAL ACTION OF IPECACUANHA. By Dr. NOEL GUENEAU DE MUSSY, Physician to the Hôtel Dieu (Paris), Member of the Paris Academy of Medicine.—The root of ipecacuanha has been for several centuries reputed one of the best remedies in many cases of acute dysentery, and, indeed, such faith has been put in it that the name of *Radix anti-dysenterica* was one of its first appellations.

When ipecacuanha is given for dysentery, the method called Brazilian is the mode of administration which prevails generally among French physicians. They give it in small doses, boiled or infused in hot water.

In many cases, and more especially when dysentery is complicated with gastric symptoms, which is very commonly to be observed, I have found it useful to begin with liberal doses, so as to obtain the effect of an emetic, and it is not till later that I give it according to the Brazilian method, in the form

of a decoction or of ipecac. syrup: one teaspoonful of the latter every two or three hours.

Lately I had under my care an American gentleman who, in a severe attack of dysentery, was not relieved after six or seven days' use of decoction of the root mixed with opium, according to the prescription of a naval surgeon. Other kinds of treatment had also proved ineffectual; and though I found him very weak and exhausted by protracted dysentery, as he complained of nausea, and as his tongue was thickly furred, I prescribed ipecacuanha as an emetic, to be followed, after vomiting, by small doses of the syrup. This was attended by immediate relief, and the patient's health was soon restored.

In chronic dysentery, and even in common chronic diarrhœa, injections of decoction of ipecacuanha into the intestines are a common practice in Peru and in some other countries of South America.

I have used this remedy with success in some cases of diarrhœa unchecked by other means. My formula is thus:—Ipecac. root, ʒi.; boil for ten minutes in water, ʒv. Let it infuse for one or two hours, strain off, and make use of the decoction as an enema.

Habitually, this enema is wonderfully well tolerated. No painful sensation, no irritation of the bowel, attends these injections in the greater number of cases. They can be retained for several hours without any difficulty, and even, occasionally, with a feeling of comfort and relief.

This successful result of the local application of the decoction in enteritis, induced me to try it in some other inflammatory affections of mucous membranes.

In the beginning of the year 1872, I received into my wards a new-born female child, about eighteen days old. She looked very poorly fed, was thin and wan, and her limbs were cold and blue, though no anomaly could be detected in the central circulation. From the red, closed and swollen eyelids oozed a muco-purulent matter, which, flowing on the cheek, irritated by its contact the skin around the eyes and the naso-labial grooves.

The eyelids could only be raised with great difficulty, and, on doing so, the mucous lining would protrude outwards—scarlet-colored, swollen, velvet-like—between the streams of purulent matter which escaped from the surface of the eyeball.

The left cornea was dull, rough, deprived of its brightness and transparency. A small ulceration, of the size of a millet seed, occupied the central part of it. A light whitish cloud darkened all the surface of the right cornea.

The child's mother was weak, anæmic, but free from any venereal contamination.

I prescribed the treatment which, for more than thirty years, I have scarcely ever found to fail in purulent ophthalmia of new-born children. An injection was ordered to be made every hour with a solution of two grains of nitrate of silver in three and a half ounces of distilled water. Four times a day, a stronger solution, containing the same quantity of the nitrate to one ounce only of water, was to be instilled.

The state of the eyes greatly improved, and the acute symptoms subsided. The purulent secretion was almost entirely dried up; but the inflammatory process was not quite extinguished. The conjunctiva remained swollen, red and slightly granulated. The cornea presented the same appearance. I touched it with a crayon composed of equal proportions of nitrate of potash and nitrate of silver. But no change took place in the condition of the affected parts. The ulceration and the opacity of both corneæ remained unmodified.

After four days of useless application of this remedy, it occurred to my mind that decoction of ipecacuanha, which had proved so useful in sub-acute inflammation of the bowels, might be successful in this case.

So I prescribed, four times daily, an instillation to be made into both eyes with the following decoction:—Ipecac. root, ʒss.; water, ʒv. Boil for ten minutes, and, when cool, strain off.

The application of this topic seemed at first rather painful; the child winked, frowned and cried after each instillation. But it soon got accustomed to them, and the affected parts were speedily modified. After twelve days, the granular appearance had disappeared; the conjunctiva recovered its natural color; the right cornea was quite healthy; only slight opacity was to be observed in the left; and, after some days, the baby left the Hôtel-Dieu entirely cured.

I related this observation to my learned friend Dr. Galezowsky, who tried the remedy in the same conditions of *sub-acute* inflammation, and in several cases with success.—*The London Practitioner.*

Successful Practice.—It cannot be said that the practice of medicine is unprofitable everywhere in California, when we read in the newspapers that Dr. Mussey, of La Porte, the other day, picked up a hundred dollars' worth of nuggets in the rocks in his diggings at Gibsonville.—*Pacific Medical and Surgical Journal.*

Correspondence.

Erysipelas during the Puerperal Condition.

Messrs. Editors,—So strongly fixed in the minds of some of our prominent practitioners is the theory that erysipelas and puerperal fever are essentially the same disease, that it may be impossible to dispossess them of the erroneous notion. Cases have been reported, in the practice of their neighbors, of erysipelas at the time of delivery, where, as in more than one instance, even the vulva was involved without any other mischief than would be expected in ordinary attacks. With them such cases are nugatory. But sometimes instances from abroad carry more weight than similar ones nearer home; and, in this view, it may be well to note that every now and then such cases are reported in foreign periodicals; as, for instance, that of Dr. Reid *(British Medical Journal*, May 16, 1874*)*, who says: "the erysipelas run its course in a most favorable manner, ignoring, as it were, and not interfering in the slightest degree with the mother's puerperal condition"; also a case in the practice of a friend, referred to by Dr. Reid; and another in the last number of the *British Medical Journal*, Sept. 5, 1874, reported by Dr. Stewart, who, from this experience, concludes that there is no necessary connection between erysipelas and puerperal fever.

This last case induces the foregoing remarks, made in the hope that others will report similar cases, which must be more frequent than is generally supposed. Yours, &c., Inquirer.

Gratuitous Advice.

Messrs. Editors,—Giving advice uncalled for is one of the errors into which some young men fall, and is a fault which many old ones are guilty of. We have seen enough of the evil effects of such advice, made more injurious, oftentimes, because the advice is given without a sight of the patient. The history of the case is most imperfectly given by one ignorant of the most important items, and a single glance at the patient would show to a well educated man, that a very slight omission of symptoms might be the means of an absurd misunderstanding of proper treatment. Because you have seen a case, which the history of this sounds like, you have no right to think the two similar; and the physician in attendance is a much better judge than you can be. Giving advice uncalled for is well enough for an ignorant minister, who puffs any quack medicine, or for an unsexed masculo-feminine busybody, who can diagnosticate between canker rash and scarlet fever, but it is not the thing for an educated physician. You would not find a member

of the bar doing it in a legal case, nor will you find a gentleman doing it in our profession. A little anecdote may not be out of place in this connection.

When studying medicine, being in a physician's office, our conversation was interrupted by a woman who wanted to see Dr. ———. Well, she saw him:—

VISITOR.—"Doctor, I've been to see Mr. M., and his wife won't give him some medicine, which I brought, unless you said so."

DOCTOR.—"That was very strange. Why not?"

V.—"She says he is under your care, and you must see the medicine, and if you say so, she'll give it."

D.—"How do you know that the medicine will be of service?"

V.—"Why, my husband was sick in just the same way, and the doctors all gave him up, and I cured him."

D.—"That is very strange. Are you sure the sickness was exactly like Mr. M.'s? For I fear he will not get well, and I should be glad to know what will cure him."

V.—"Yes, exactly the same."

D.—"Did your husband have that numbness in his left foot and hand?"

V.—"Yes."

D.—"And that pain over his right eye?"

V.—"Yes."

D.—"And that partial loss of consciousness in the morning?"

V.—"Yes."

D.—"And the swelling under the jaw?"

V.—"Yes, exactly so."

D.—"Well, it is very extraordinary that the medicine should have done so well for your husband; but, as Mr. M. has had *none* of those symptoms, I think, on the whole, it would be as well not to give it to him."

Look out, Mr. Advice-Gratis-Giver, or you may get caught in the same way.

ATROPIA IN PHTHISICAL SWEATING.

MESSRS. EDITORS,—The reference in the JOURNAL for September 10th to the action of atropia in the sweating of phthisis and exhaustion, leads me to communicate the results which I have been able to notice after its administration. I have prescribed it in eight cases, seven of whom were inmates of the House of the Good Samaritan, and one living in Boston Highlands. Of these, six had phthisis, one tuberculosis (general), and one very marked and obstinate anæmia. The dose in five cases was one one-hundred and twentieth of a grain; in two, one sixtieth of a grain; and in one, one-sixty-fourth of a grain. In six cases, the sweating ceased within forty-eight hours, and in the other two it was very markedly diminished. The medicine was generally continued for one or two nights after the sweating had stopped. In two cases, there has been no return of the perspiration; in the others (all cases of consumption), the sweating returned after a longer or shorter interval, sometimes weeks passing without a night-sweat. In three cases, the pupils were dilated from the dose of one one-hundred and twentieth of a grain; in two cases, there was dryness of the throat, and in one patient the atropia caused pain in the abdomen to such a degree that it was omitted. The form used was, in seven cases, the granules of Bullock and Crenshaw; in one case, a solution of sulphate of atropia in equal proportions of syrup of tolu and water. The time of administration was late in the afternoon. In those cases in which its physiological action was expressed, the pupils were always affected before the throat. In no case has any injury followed its use; the undesirable symptoms above mentioned entirely disappeared within a few hours. The strength of the patients has invariably been greater after its use than before, and, with one exception, they have expressed themselves as feeling much better, sleep has been rendered much more refreshing, and the clinical aspects of the patients very much improved.

Very truly, ALBERT N. BLODGETT.

Medical Miscellany.

In the week ending Sept. 12th, out of 140 deaths in New York from diarrhœal diseases, 128 occurred among children under five years of age.

A writer in *The Journal of Applied Science* (September 1) states that castor-oil has so little effect on Chinese intestines that the Celestials use it habitually in cookery.

It is understood that the following will be the staff of the Maine General Hospital. The Medical staff, Drs. Dana, French, Small and Thayer. Surgical staff, Drs. Tewksbury, Green, Weeks and Gordon, with Dr. Hunt as resident physician.

Hygiene Afloat.—We read, in the *Lancet*, that several cases of lead-poisoning have occurred at Chatham Dockyard among workmen employed between the double bottoms of armor-plated ships. Dr. Jack, R. N., has recommended that each man employed in this kind of work shall be furnished with a relay of canvas suits to prevent the lead adhering to his clothes.

Esmarch's Method is modified by Dr. W. W. Keen, with a view to prevent the paralysis which sometimes follows the use of the elastic bandage. He asserts that the bandage and tubing are usually applied too tightly, and that the loosest application that will blanch the skin and keep it so is the best.—*Philadelphia Medical Times.*

Another Death by Chloroform.—Mr. Charles Linscott died on September 26th, in the office of Dr. O. P. Rice, a dentist of Boston, while under the influence of chloroform administered for the extraction of a tooth. Coroner Ainsworth has impanelled a jury, and the affair is to be thoroughly investigated. The autopsy showed no disease sufficient to account for the death.

The Phylloxera. — Notwithstanding the favorable report recently made by M. Dumas on the efficacy of the means employed for the destruction of this devastating pest of the vineyards of France, its ravages continue so alarming that the National Assembly has voted the sum of 300,000 francs as a prize for the inventor of an effectual destructive procedure.—*Medical Times and Gazette.*

Absence of the Corpus Callosum, without any Intellectual Disturbance. — Dr. Malinverni, professor of pathological anatomy at Turin, gives the detailed description of the brain of a man, 40 years of age, who died of gastro-enteric affection. During life he had never exhibited any deficiency or perversion of intellect, and yet after death the corpus callosum and septum lucidum were found to be entirely absent.—*L'Union Médicale; Medical Times and Gazette.*

There is on exhibition in Kentucky a boy, three years old, who weighs 126 pounds, measures 37 inches around the chest, 40 inches around the waist, about 56 inches around the hips, 26 inches around the thigh, and 40 inches in height. The father of the child is of medium size, the mother rather small. The child, when born, was of ordinary size, and was six months old before he began to develop into such enormous proportions.

Damnable Iteration.—The fact that the Hospital of Vienna was opened on Monday, August 16, 1784, appears to be agitating the public mind in Vienna. A correspondent who signs himself M. has informed us of the fact; one signing himself D. has done as much for the *Richmond and Louisville Medical Journal*, and now a certain P. asserts it in the *Philadelphia Medical Times*. Queerly enough, our correspondents favor us with precisely similar statistical tables.

We propose hereafter to mind our Ps and Qs and to look out for *flams*.

PRACTICAL CREMATION.—Madame Fortmeyer, a midwife, was recently arrested in St. Louis for committing an abortion. At the investigation, it was proved that Madame Fortmeyer had a unique and original method of ridding herself of all tell-tale evidence. A favorite aphorism with her was, "*Ashes tell no tales.*"

This very pleasant and amiable person indulged in the pastime of *burning* the results of conception; and it was shown at the inquest that she had *roasted* in her stove the bodies of living, breathing infants. "Surely," says the *Missouri Clinical Record*, "this intelligent lady should be rewarded for inaugurating in this country a practical demonstration of incremation; but we are afraid—notwithstanding the efforts of humane lawyers in her behalf —that she will be rewarded quite otherwise."—*Philadelphia Medical Times.*

LOCAL POISONING BY LEAD.—Dr. A. Manouvriez having inquired into the experience of thirty workmen, who from the nature of their occupations were brought more or less into contact with lead, has come to the conclusion that possibly all the local symptoms of paralysis, change of sensibility, etc., are the result of the direct absorption of the poison through the skin. In those who were right-handed, it was always the right upper extremity that was affected; while in the left-handed, the symptoms were, for the most part, confined to the left upper extremity. A worker in white-lead, whose feet were most frequently brought into play (in the process of stamping), was first affected in these parts. Two right-handed workmen happened to be seized with paralysis in the left arms and hands, but in their case it transpired that it was the left upper extremity which had come in contact with the lead.

In view of these observations, we are justified in asserting that by applying an artificial protection to the skin of lead-workers, we may be able to afford an efficient prophylactic against lead-poisoning.—*Gazette des Hôpitaux, May* 7, 1874.

NOTES AND QUERIES.

MESSRS. EDITORS,—Is chloral hydrate an animal? and is it one of those animals upon the existence of which disease in the human being is supposed to depend? If not, what is the meaning of this paragraph from the *Boston Courier?*

"It seems that the physicians in India have come close to a perfect cure for cholera. The discovery is the hypodermic injection into the arms and legs of chloral hydrate."

Yours, CHOLERA.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and towns for the week ending September* 19, 1874.

Boston, 151; Worcester, 18; Lowell, 31; Milford, 2; Cambridge, 27; Salem, 12; Lawrence, 12; Springfield, 11; Lynn, 18; Fitchburg, 6; Newburyport, 5; Somerville, 10; Fall River, 27; Haverhill, 9; Holyoke, 14. Total, 353.

Prevalent Diseases.—Cholera infantum, 90; consumption, 37; typhoid fever, 17; diarrhœa and dysentery, 13; whooping cough, 10; scarlet fever, 9.

Worcester reports five deaths from whooping cough.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Sept. 26, 173. Males, 78; females, 95. Accident, 1; apoplexy, 1; inflammation of the bowels, 3; disease of the bowels, 2; bronchitis, 2; inflammation of the brain, 3; congestion of the brain, 2; disease of the brain, 2; cancer, 4; carbuncle, 1; cholera infantum, 30; cholera morbus, 1; consumption, 30; cyanosis, 1; cystitis, 1; debility, 6; diabetes, 1; diarrhœa, 13; dropsy of the brain, 5; drowned, 1; dysentery, 2; diphtheria, 1; scarlet fever, 3; typhoid fever, 8; disease of the heart, 7; hæmorrhage, 2; jaundice, 1; disease of the kidneys, 1; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 5; marasmus, 7; neglect, 1; old age, 5; phlebitis, 1; paralysis, 2; pleurisy, 2; premature birth, 2; puerperal disease, 1; scalded, 1; disease of the stomach, 1; septicæmia, 1; tetanus, 1; ulcer of leg, 1; whooping cough, 4.

Under 5 years of age, 89; between 5 and 20 years, 8; between 20 and 40 years, 35; between 40 and 60 years, 23; over 60 years, 18. Born in the United States, 132; Ireland, 27; other places, 14.

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Original Communications.

RECORDS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT.*

By B. JOY JEFFRIES, A.M., M.D., Harv.

Ophthalmic Surgeon at the Massachusetts Charitable Eye and Eye Infirmary, the Carney Hospital, and the New England Hospital for Women and Children.

THESE are records of my operations since I gave up the old flap, and employed Prof. Graefe's method of extracting cataract. My reasons for so doing may be found in this JOURNAL for Nov. 2, 1871. I do not here propose to discuss the relative value of the various methods of removing cataracts by extraction. My records, however, certainly show the adaptability of Graefe's method to the different forms of cataract, both in children and adults. The list contains seventy-two Graefe operations for cataract in adults, not congenital; one linear extraction of soft cataract in an adult; twenty-one cases of congenital cataract in children or adults operated on in various ways, and eight cases in which traumatic cataracts were removed by one method or another. Two flap extractions are also recorded here, being those done on the first eye of two patients, where I changed to Graefe's operation for the second.

I would first here quote from my previous article just referred to, in which I said: "The profession at large will not, nor can they be expected to, take any interest in such an article as this, until relative or friend is blind from cataract, and seeks by operation the restoration of sight. Then the method chosen and its prospects of success become of vital interest. But a very great and perhaps somewhat extraordinary ignorance prevails, not only among the laity, but also among professional men, as to cataract itself. Where any knowledge exists, it seems to be that cataract is not a disease, or due to a disease, but simply an opacity of the crystalline lens, and if this can be successfully removed from the eye, the patient must needs see as well with that as with the other eye when not affected. Now, unfortunately, should the ophthalmic surgeon limit his operation to pure senile cataract, he would not relieve a large number of cases that can be helped in some degree, although his record of *success* would be materially increased. Congenital, posterior polar or cataract with disease of the internal ocular membranes, and traumatic, embrace a pretty large number which we are, so to speak, forced to operate on, yet which we know will reduce the fraction in our column of vision when the cases are tabulated. For instance, a child may have congenital cataract in

* Read before the Suffolk District Medical Society, Sept. 26, 1874.

both eyes, not enough in one eye to prevent reading, but sufficient in the other to allow only the discernment of large objects or the recognition of light from darkness. If, now, an operation does not give to this eye as good vision as the other, the operator is naturally blamed, although he may have cleared away all obstruction to the entrance of the rays of light to the retina, and his operative interference not have excited damaging inflammation. The retina or recipient surface, and the optic nerve or conducting apparatus are at fault, i. e. they are not developed normally.

"Or, again, a physician recognizes cataract in one of his patients, and sends him to the specialist for operation. The ophthalmoscope shows the latter that the cataract is due to, or accompanied by, disease of the choroid, which of itself would reduce the power of vision excessively, and, moreover, that the choroidal trouble may in great measure count against operative interference. Should, now, this latter be employed, and all obstruction to the entrance of light be successfully removed, yet the surgeon gets blamed for not performing a miracle, namely, making the blind retina perceive. I will not dwell upon the fact of how utterly the specialist is in the hands of the patient he has operated on or their surroundings, or how they may readily spoil his best work, by neglect or total disregard of the directions and precautions given. These are matters the profession, at least, can well understand, and we are sure of their sympathy in them. Please let it be remembered that an eye with cataract is a diseased one, and that the operation causes a dangerous wound."

The analysis of my operations I present, not for ophthalmic surgeons to draw arguments from in favor of one or the other operation for cataract, but in such a simple form that the profession may gather from it some better idea about cataract operations themselves, the time required for treatment, the complications liable to arise, the accidents that occur, both at the time and afterwards. I think, too, it will help to excuse us specialists for being, as no doubt we often are thought to be, namely, *fussy* about our patients. It may also show why I, for one at least, have so frequently refused to operate on patients at a distance from Boston, when they must be left under their own physician's care afterwards. I prefer the patient within reach, where a visit may be made at any time, even if it is only to relieve my own anxiety. I well know how great an advantage it is to have old persons quiet in their own home, and amidst their own surroundings. My experience, however, has taught me that if you can get an old person once started from home, he will not generally be homesick till, if the case goes favorably, such time after the operation as it is safe to let him return. I find that when there was blindness from double cataract, an old person's homesickness is often half a desire to again see once familiar faces and scenes. Much naturally depends on the success of the surgeon in his hold over these *old children*.

About the operation itself: A patient's dread of it comes, of course, only from what he gathers from his surroundings, professional or otherwise. Now, in fact, there is rarely pain after cataract operations; most generally, absolutely nothing but the discomfort of a bandage. I have *always given ether*, and have *never seen cause to withhold it*, or evil effects traceable to it. Moreover, I have seen the very worst that can happen after operation, namely, general suppurative inflammation

of the globe, run its course *without pain*. With Graefe's operation, our wound heals quickly, and the patient can soon be up and dressed, an important point with old people. About all of the old paraphernalia of preparations and precautions have been brushed away as unnecessary, at least. We now best take patients just as they are, in average health and condition. Too much is made of the formidableness of a cataract operation. I have thought that the present success of ovariotomy was not a little increased by the once almost complete dread of it being broken down. For myself, I would rather extract a cataract for a patient who had never heard of the operation for it. I make it a rule to try to persuade physicians to be present when I operate on their patients, to disseminate, if possible, a true knowledge by observation of the operation itself. I think my brother ophthalmic surgeons will agree with me that the wear and tear on us is not the operation itself and anxiety during treatment, but the mental effort required to brush away the thousand and one fears, dreads, prejudices and whims with which patients' surroundings have enveloped them. Many and many an old person is now passing the last ten or twenty years of his life in the darkness, an extra care and burden to friends and relatives, simply because these very friends and relatives take it upon themselves to do the medical man's thinking for him. The family physician can best help to disabuse the patient and those interested in him, of the many wrong ideas now prevalent about the pain from cataract operation, the danger to life from ether, the absurdity that old people can't take it, and the many wrong impressions as to the time to be passed in bed, or shut up in a darkened room, &c. Nothing dispels all these from the physician's mind quicker or more thoroughly than to come and see how we do the operation, and how we take care of our patients afterwards.

An inquiry recently made in the Boston Medical and Surgical Journal induces me to add a few plain words here. Although cataract is very properly placed in our fee table among the capital operations, yet no one in this New England community need, from poverty, remain blind on account of it. In consequence of a prevalent opinion to the contrary, amongst the laity, and even in the profession, I would here explicitly state that the Surgical Staff at the Massachusetts Charitable Eye and Ear Infirmary receive no fee or emolument of any kind whatsoever from the State, city or patients. Since it was founded by Dr. Reynolds, senior, and my father, in 1827, its doors have been freely open to all charity cases. The house patients, when able, pay board at the present rate of five dollars per week. No patients are ever refused admittance because they cannot afford to pay their board, least of all those suffering from blindness due to cataract. There are, however, no private rooms for patients desiring to pay a fee for professional services, or wishing to have more care and attendance than the other patients. Such arrangements are customary in all hospitals, but they do not yet exist in the Infirmary; hence, those who desire, or who can afford, to pay for operations must be refused admittance. Such patients can, however, obtain at the hospital to which I am attached in South Boston, the Carney, the best rooms and trained nursing, such as cannot be obtained at any price in hotel or boarding house, and on the most reasonable terms. This hospital fully meets the cases of those who desire and have the ability to pay something, and who shrink

from being treated as charity patients. The Carney is the best situated hospital as regards light, air and opportunities for ventilation. Private patients need never know they are under a hospital roof, and they soon learn from kindness and attention received that a sister of charity is not a nun. Professional services at the Carney Hospital are not confined to the staff. Any physician can have private patients there, and I do not think he or they will regret having availed themselves of the opportunity. It will therefore be seen that there really is no excuse in this New England community for those who, from carelessness or lack of means, allow dependants, friends or relatives to live on the latter years of their lives deprived of the blessing of sight, or let children grow up in darkness from congenital cataract.

Much ignorance prevails as to the time when a cataract should be extracted. It is almost the universal rule among ophthalmic surgeons not to operate on both eyes at the same time. When one eye has cataract, this should be extracted as soon as it is ready. Waiting till the other eye is affected is a bad plan, as not only is the best condition of the lens to be removed thus lost, but a patient having one good eye is not so frightened in reference to an operation on the other, and should it fail from any special cause, the surgeon has learned how to deal with the second eye and with his patient. Patients with double cataract will rarely allow the second to be removed if the first was not a success. Graefe's operation can be employed any time during the year in hot or cold weather. The patient needs no preparation but an empty stomach to take ether on.

As to congenital cataract in children: This is very often mistaken for simple near-sightedness, and the child allowed to grow up without the necessary operative interference. I have repeatedly called physicians' attention to this in the medical journals. A congenital cataract is very apt to so change as to render its removal more and more difficult with advancing years, and greatly diminish chances of success in operating, and resulting vision. Complete congenital cataract cannot be operated on too early, in order to let in the light and favor the growth and development of the eye. Improved instruments allow us now-a-days to attack and remove these forms of cataract with much greater certainty and success.

In a previous paper, I remarked that I would rather have a report as to how perfectly the pupil was cleared of cataract and its debris, than the fraction expressing the patient's vision. We always know of our unsuccessful cases before they leave our care. All others, in spite of our greatest care, are apt to go away without our having opportunity to test their power of vision, or even select their spectacles. Many patients in this list, whose vision is unrecorded, are naturally constantly appearing to have their glasses selected. Two came whilst I was writing this article. All cases which were successful are so stated in the column of recorded vision. To have vision equal to one-tenth, i. e. to read our test-types for one hundred feet, at ten feet, is considered a success. Much less vision, however, than one-tenth is a great blessing to an old person, or even a young one. Whilst I agree most fully with the feeling that every one of our cases should be most carefully tabled and vision recorded, yet I agree with Prof. Zehender, who, in reviewing the report of the 1873 meeting of the American Ophthalmological Society, remarks, finally: "The concluding that this or

that method of operating is better than any other, because it has so much or so much per cent of success, we cannot regard as perfectly fair and correct, however heretical this view of ours may seem."

Whilst I always strive to secure, at any sacrifice of time and trouble on my part, a record of resulting vision when the patient leaves my care, or subsequently, just how small the fraction is which expresses the sight gained I do not so much interest myself in. Till this article was written, I never had made up a table of my results. On going over my original notes, from which these reports are compiled, I find that of these one hundred and five cases, eight failed wholly; not from the operation, but subsequent inflammation, &c., as the "Remarks" and "Vision" column will show. One of these was from purulent ophthalmia, transferred by the fingers, the wound having healed well. Some of the other seven may hereafter be benefitted by a secondary operation, but I mark them now as lost. It is, perhaps, a little curious, but I have done but one secondary operation, and that was after one of the two flaps here recorded. There are fifteen cases where distant vision was not recorded. Some of these I know from their reading Jäger's test-type, No. 1, will be hereafter recorded amongst my most successful cases, and all will be classed in or above the one-tenth vision considered successful. Quite a number, I operated on against my will.

Many of these cases have already, through the Reports of the Infirmary, passed into the lists of cataract operations gradually collecting in the various parts of this country. As showing simply how resulting vision varies, I tabulate my cases of extraction not congenital or traumatic where I have a positive record of *distant* vision, that is, the test letters at a distance of twenty feet.

In explanation of the column of resulting vision, the letter J means Jäger's test-types, the finest being No. 1. The letters Sn. mean Snellen's types, the finest being $1\frac{1}{2}$. In the column headed functional examination, *normal* means that the eye-ball is not too soft, the pupil dilates sufficiently well, there is no apparent present disease, and the patient can say, in a darkened room, where a candle is as it is moved about, whilst the eye is still and its light thus falls on different portions of the retina.

V = 1 cases 2.	V = $\frac{1}{4}$ " 6.	V = $\frac{1}{10}$ " 7.
V = $\frac{2}{3}$ " 5.	V = $\frac{1}{5}$ " 5.	V = $\frac{1}{20}$ " 2.
V = $\frac{1}{2}$ " 10.	V = $\frac{1}{7}$ " 1.	V = $\frac{1}{100}$ " 2.
V = $\frac{1}{3}$ " 3.	V = $\frac{1}{8}$ " 2.	



The type, in which this line is set, is equal in size to number two (No. 2), Jager. Vision one is to be able to read the above letters B U C at twenty feet. Vision one-half, F K at twenty feet. Vision one-tenth, considered a success, to read C at twenty feet.

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT.

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anæsthesia. Remarks. After-treatment.	Duration of Treatment.	Resulting Vision and date of Record.
1	70	M.	Good.	Senile. O. D.	Normal.	Flap extraction downwards, with iridectomy. Some vitreous lost, and nucleus removed with scoop. Considerable cortical remained. One year after, small iridectomy done on contracted iris and capsule torn with stop needle.	28 dys.	One year. Jäger 16 at 4″, and go about alone.
2	70	M.	Good.	Senile. O. S.	Normal.	Graefe downwards. Nucleus large and hard. Small amount of cortical left in the pupil. Patient wrote, "he never could see minute objects better than now."	18 dys.	One year. Jäger 1.
3	37	M.	Good.	O. S.	Normal.	Flap extraction upwards, with iridectomy. Cornea quite thin and iris not over strong.	26 dys.	Six months. V = 20-40. Jäger 7.
4	37	M.	Good.	O. D.	Normal.	Graefe upwards. Normal.	14 dys.	Fourteen days. V = 20-40. Improved to 20-20.
5	46	F.	Poor.	O. S.	Normal.	Flap extraction, with iridectomy. Some vitreous. Wound closed well. Fifth day, purulent discharge. Patient a drunkard, and having leucorrhœa. Removes bandage and elopes, notwithstanding tonics and stimulants were allowed.	30 dys.	Sees a hand. Thirty days.
6	61	F.	Fair.	Caused by chr. trouble. O. D.	Fair.	Graefe upwards. Lens removed with scoop. Some subsequent hæmorrhage.	22 dys.	22 days. Counts fingers at 5′. Fast clearing.
7	79	M.	Very poor.	Hard senile. O. S.	Normal.	Graefe upwards. Normal, except slow absorption of cortical.	22 dys.	Six months. Vision = 20-100. Jäger 6.
8	29	F.	Fair.	Soft. O. S. Four weeks.	Normal.	Graefe upwards, small cut. Patient was feeble during treatment. Vitreous found cloudy.	30 dys.	Noted only "now improving."
9	67	F.	Poor.	Senile, overripe. O. D.		Graefe upwards. Lens substance fluid. Irido-choroiditis tenth day. Eye lost.	36 dys.	Vision = 0.
10	80	M.	Good.	Senile, eight years. O. D.	Normal.	Graefe upwards. Patient restless and homesick. Left, with improving vision. Eye irritable.	30 dys.	30 dys. Counts fingers.
11	50	F.	Good.	Senile. O. D.	Normal.	Graefe upwards. Iris pushed back, and could not be grasped; yet, one month later, looked as if an iridectomy had been done.	20 dys.	Twenty days. Vision = 20-30.
12	75	F.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Cortical not well cleared.	15 dys.	Fifteen days. Vision = 20-100. Jäger 9.
13	75	F.	Good.	Senile. O. D.	Normal.	Graefe upwards. Normal.	15 dys.	Forty-five days. V = Jäger 7. Can sew.
14	65	M.	Good.	Senile. O. D.	Normal.	Graefe upwards. Normal.	17 dys.	17 dys. V = 5-20. J. 17.
15	65	M.	Good.	Senile. O. S.	Normal.	Graefe upwards. Normal. Third day, bandage off and patient up and about.	7 dys.	Seven days. Vision = 5-20.

16	83	M.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Iris receded. Some vitreous. Patient very restless; removed bandage. Wound not closed for long time. Iris in it. Good ant. chamber and a chance for future operation. Another surgeon met with similar result with the other eye.	47 dys.	Vision = 0.
17	50	M.	Very poor.	Senile. O. D.	Normal.	Graefe upwards. Normal. Patient came out of ether as usual. Third day, died in apoplexy. A drunkard, who was watched ten days to avoid liquor, which he, however, obtained. The cut healed perfectly.		
18	73	F.	Good.	Senile. O. D. 20 years.	Normal.	Graefe upwards. Large mahogany-colored lens removed. Some capsule left.	20 dys.	20 days. Counts fingers at 20 ft. J. 12.
19	69	M.	Fair.	Senile, both fol. post. polar.	Not very good.	Graefe upwards. Large lens removed. Pain; in twelve hours, traumatic choroiditis and iritis. Pus in anterior chamber in forty-eight hours. Gradually disappeared. Operation could not be well refused.	25 dys.	Vision = 0.
20	27	F.	Good.	Soft. 2 years. O. D.	Good.	Graefe upwards. Lens soft. No hard nucleus. Patient vomited ten hours.	17 dys.	Seven mos. V = 20-40. Cannot read. Sews.
21	76	F.	Fair.	Senile, both O. D.	Normal.	Graefe upwards. Pupil well cleared. Threatened iritis, sixth day.	18 dys.	Eighteen days. Vision = 1-8.
22	67	M.	Good.	Post. polar, but no signs of choroiditis now	Fair.	Graefe upwards. Some vitreous, and lens removed with scoop. Choroidal hæmorrhage and subsequent suppuration of globe. After operation, patient admits he was once nearly asphyxiated in a tank. A man with him became blind, and this patient's eye was never so good afterwards.	28 dys.	Vision = 0.
23	Same	pat'nt	as No. 20.	2 years. Soft. O. S.	Normal.	Graefe upward. Small cut, and pupil cleared by rubbing.	22 dys.	22 days. V = 20-50. Pt. cannot read. Sews.
24	80	F.	Good.	Senile. O. S.	Normal.	Graefe upwards.	21 dys.	21 days. V = 20-100. Snellen 6.
25	70	F.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Iritis from exposure on removal to another room, and patient went home.	12 dys.	5 months. V = 1-8. Jäger 18.
26	60	M.	Good.	Senile and post polar. O. S.	Fair.	Graefe upwards. Considerable blood in anterior chamber, so no cortical could be removed, except with the lens. Bandage badly kept on. Two and a half months later, under ether, a roll of iris removed from centre of pupil.	19 dys.	2 1-2 months. V = 20-40. Patient cannot read.
27	57	M.	Fair.	Senile. O. D.	Normal.	Graefe upwards. Wound healed well. One week, blood in anterior chamber. With atropine and leeches, all subsided. Patient will now improve in vision rapidly.	23 dys.	23 days. Sees small objects, like the cutting on a finger ring.
28	23	F.	Good.	Soft. O. D.	Normal.	Small Graefe upwards. Capsule removed with forceps, and pupil clear. No blood in anterior chamber. Next day, blood in anterior chamber, but eye quiet. Bandage hardly kept on at all.	20 dys.	Not recorded, as patient is to return for glasses. Will be good.
29	64	M.	Good.	Senile. O. S.	Normal.	Graefe upwards. Normal. Third night, patient struck his eye and had severe pain three hours. Thirty-six hours after, pain and redness. Wound looking as if it would slough. Atropine, &c. In ten days, quiet.	13 dys.	2 1-2 months. V = 10-100.

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT. (CONTINUED.)

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anæsthesia. Remarks. After-treatment.	Duration of Treatment.	Resulting Vision and date of Record.
30	71	M.	Good.	O. D. 7 years. O. S. 1 year.	Normal.	Graefe upwards. Normal. Patient had used atropine in o. s. for five years.	21 dys.	21 days. V = 2-10. Reads Snellen 12.
31	70	F.	Good.	O. S. Sen. O. D. pos. pol. 19 yrs.	Normal.	Graefe upwards. Third to fourth day, patient struck her eye and forced open inner edge of wound, and iris adhered in it.	33 dys.	33 days. V = 20-100.
32	76	M.	Good.	O. D. Senile.	Normal.	Graefe upwards. I removed, a month previous, a stump from o. s., the result of old injury. This was irritating the other eye.	22 dys.	22 days. V = 20-50. Jäger 1.
33	80	M.	Good.	Senile. O. D.	Normal.	Graefe upwards. Did well till fourth day; then, sudden irido-choroiditis, reducing vision, which was, on third day, equal to seeing finger ring without glass.	21 dys.	1 1-2 month. Sees fingers. Improving.
34	36	M.	Good.	Not recorded. O. D.	Normal.	Graefe upwards. Did very well till third week. Patient went out raw November day, and at once hæmorrhage in anterior chamber. Great pain. One month, blood gone. Patient says he saw well laterally till time of pain.	56 dys.	Vision = 0.
35	40	M.	Good.	Senile. O. S.	Normal.	Graefe upwards. Normal.	29 dys.	1 year. V = 20-30. Snellen 1 1-2.
36	65	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Normal.	27 dys.	27 days. V = 20-30. Snellen 1 1-2.
37	79	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Normal.	21 dys.	21 days. V = 10-100. Snellen 1 1-2.
38	68	M.	Good.	Senile. O. D.	Normal.	Graefe upwards. Iris cut with knife. It folded in, and was grasped with forceps. Wound healed a little slowly.	30 dys.	30 days. V = 10-40. Snellen 1 1-2.
39	80	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. Cut was small.	22 dys.	22 days. V = 20-40. Snellen 3. 2 years, ditto.
40	62	M.	Good.	Senile. O. D. both. Doubtful.	Normal.	Graefe upwards.	22 dys.	22 days. V = 20-40.
41	43	F.	Good.	Hard blow on temple 2 yrs. ago. Soft?	Not good.	Graefe upwards. Some subsequent pain, but did well.	16 dys.	16 days. V = 20-40. Snellen 1 1-2.
42	71	M.	Fair.	Senile. O. D. Over-ripe 4 yrs	Normal.	Graefe upwards. One month, tag of iris in outer edge of wound.	18 dys.	18 days. V = 1-7 and Snellen 1 1-2.
43	64	F.	Fair.	Senile, some years.	Fair.	Graefe upwards. Lens came out in two pieces. Patient rather feeble. Before operation, posterior surface of lens quite white and rest of lens pretty clear.	20 dys.	V = 10-100.
44	62	F.	Fair.	Senile. O. S. both.	Normal.	Graefe upwards. Normal. Patient went home, and bought *concave* glasses. With convex guessed at, patient has vision to read with.	8 dys.	1 1-2 years. Reads and threads fine needle.

45	72	F.	Fair.	Senile. O. D. both.	Normal.	Graefe upwards. Did well till ninth day. Some iritis and acute granulations. Treated some two months.	20 dys.	2 months. V = 15-60. Snellen 4 1-2.
46	50	F.	Good.	Senile. O. S. both.	Normal.	Graefe upwards. Normal.	21 dys.	21 days. V = 20-20. Snellen 1 1-2.
47	60	M.	Good.	Senile. O. D. both.	Normal.	Graefe upwards. A little vitreous. Iris became involved in wound, causing slow healing.	32 dys.	32 days. V = 10-10C. Snellen 3 1-2.
48	50	M.	Poor.	Senile. O. D. both.	Poor.	Graefe upwards. A very deep-set eye, rendering a perfect Graefe impossible. Patient thought to be crazy by his family. Nervous, irritable; removed bandage. Traumatic iritis, which yielded to treatment, and in one month vision was 10-100. He after this got granular lids and double iritis. The lymph in pupil organized, and the patient has not been since mentally fit for any further operation.	30 dys.	30 days. V = 10-100.
49	62	F.	Fair.	Senile. O. D. both.	Normal.	Graefe upwards. Normal.	19 dys.	19 days. V = 20-100. Snellen 2.
50	57	M.	Fair.	Senile. O. D. 2-3 years.	Normal.	Graefe upwards. Not a full Graefe cut.	21 dys.	21 days. V = 20-100. Snellen 2 1-2.
51	50	F.	Fair.	Senile. O. S. both. Operat'n twice refused.	Fair.	Graefe upwards. Cortical left, rather than risk vitreous. Normal till fourteenth day, when patient used very hot water on eye and had blood in anterior chamber. Absorbed in a few days.	31 dys.	31 days. V = 20-40. Snellen 1 1-2.
52	50	F.	Good.	Senile. O. D.	Normal.	Graefe upwards. Normal.	20 dys.	20 days. V = 20-30. Snellen 1 1-2.
53	59	M.	Fair.	Senile. Both O.S. was struck 2 years ago.	Normal.	Graefe upwards. Vitreous, as was expected, came, and lens removed with scoop. A little tag of iris remained in end of wound after healing.	28 dys.	28 days. V = 20-80. Snellen 4 1-2.
54	63	F.	Fair.	Same pt. as 49.	Normal.	Graefe upwards. Normal.	22 dys.	22 days. V = 20-40.
55	58	M.		Senile. O. S.	Normal.	Graefe upwards. A tag of iris fastened in end of wound whilst healing.	20 dys.	20 days. V = 20-80. Snellen 1 1-2.
56	49	M.	Fair.	Senile. O. D.	Normal.	Graefe upwards. Did well till fourth day. Then, against orders, bandage removed. Some pain, and blood in anterior chamber. Fifteenth day, violent pain, "as if eye struck with fist." Treatment relieved all.	26 dys.	26 days. V = 10-30. Patient cannot read.
57	63	F.	Fair.	Senile. O. D. 15 years.	Fair.	Graefe upwards. Lens substance like pus. This eye, after operation, showed the same alteration at the centre as the other does, operated on twenty-three years ago.	22 dys.	22 days. V = 10-100.
58	46	M.	Good.	O. D. 3 years. Soft.	Normal.	Graefe upwards. Lens substance harder than supposed; still no nucleus. There has been, probably, old choroiditis, or at least trouble with vitreous, as there were cobweb films in pupil not due to lens, and	14 dys.	Not noted as different from other eye.
59	46	M.	Good.	O. S. 1 yr.	Normal.	before operation patient had muscæ volitantes. The other eye, operated on sixteen days after, did the same or better. Both are clearing.	18 dys.	18 days. V = 5-100.

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARACT. (CONTINUED.)

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anæsthesia. Remarks. After-treatment.	Duration of Treatment.	Resulting Vision and date of Record.
60	71	M.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Patient moving, and considerable blood; yet the operation passed off well. General inflammation came on in forty-eight hours, but no pain. Ran the usual course. Pus profuse. Though no contagion could be traced, a case of gonorrheal ophthalmia was in the adjacent room.	50 dys.	50 days. V = 0.
61	60	M.	Good.	Senile. O. D. 1½ year and post. polar.	Normal.	Graefe upwards. Normal. Bandage off third day.	17 dys.	17 days. V = 20-50. Snellen 1 1-2.
62	61	M.	Good.	Post. polar and senile. O. S.	Normal.	Graefe upwards. Normal.	14 dys.	14 days. V = 10-30. Snellen 1 1-2.
63	84	M.	Good.	Senile. O. D. 5 yrs. O. S. 2 years.	Normal.	Graefe upwards. Patient very restless. Fourth day, bandage off.	25 dys.	4 1-2 mos. V = 20-40. Snellen 1 1-2.
64	69	M.	Fair.	Senile, not perfect. O. D. 3 years.	Normal.	Graefe upwards. Cataract very sticky. Patient has been a hard drinker. Considerable cortical left, which was absorbed but slowly, taxing the eye. But quiet in two months.	30 dys.	5 months. V= 10-100. Jäger 8.
65	81	M.	Good.	Senile. Hard. 6 yrs. O. S.	Normal.	Graefe upwards. Cornea very small. Wound small and enlarged. Lens removed with difficulty. Fifth day, bandage off, and patient tells fingers. Cortical absorbing slowly.	23 dys.	23 days. Counts fingers. Goes about alone.
66	58	F.	Fair.	Hard. 6 yrs. O. D.	Normal.	Graefe upwards. Patient up third day, and did well, notwithstanding weakening diarrhœa.	14 dys.	14 days. V = 20-50. Snellen 2.
67	74	F.	Fair.	Senile. O. S.	Normal.	Graefe upwards. Cut small, but lens came easy. Did well till seventh or eighth day; then, slight irritation and patient homesick. Taken home. Vision is very good, but only could be hastily tested, as recorded.	18 dys.	18 days. J. 8–9.
68	52	M.	Good.	6 mos. O. D.	Normal.	Graefe upwards. Persistent iritis. Pain after operation for three hours; relieved by loosening bandage. Treated as out-patient.	30 dys..	Not yet taken.
69	80	M.	Good.	Senile. O. S. both.	Normal.	Graefe upwards. Lens nucleus removed with scoop after many efforts. Wound healed perfectly. Patient had senile delirium, tearing off bandage and rushing out doors. After operation, family said he had so acted before. He was a most inveterate smoker and chewer. The cortical was fluid and lens nucleus sank. No iritis followed.	30 dys.	Vision = 0.
70	70	M.	Good.	Senile. O. D. Not perfect.	Normal.	Graefe upwards. Patient sneezed violently and continuously under ether. No vitreous lost. Wound healed well. Pupil perfectly clear, and ophthalmoscope showed old choroiditis, a history of which and iritis was then got.	25 dys.	25 days. V = sees fingers.

71	72	M.	Good.	Senile. O. D.	Normal.	Graefe upwards.	Normal.	17 dys.	3 years. V = 20-20.
72	73	F.	Fair.	Senile. O. D.	Normal.	Graefe upwards.	Very tedious recovery from bronchitis.	21 dys.	21 days. V = 15-30. Jäger 5.
73	60	F.	Fair.	Senile. Over-ripe. O. D.	Normal.	Graefe upwards.	Patient weak and with cough, but improved.	17 dys.	2 months. V = 20-64. Jäger 3.
74	60	M.	Good.	Senile. 1 yr. O. D.	Normal.	Graefe upwards.	Normal.	14 dys.	1 month. V = 20-30. Jäger 1.

Congenital Cataracts.

75	50	M.	Good.	Congenital. O. S. Lately increased, and cretac. spots on capsule.	Normal.	Graefe upwards. Small cut. Sticky lens removed with forceps and curette. Normal.		18 dys.	18 days. Snellen 1 1-2. V = 20-50.
76	9	M.	Good.	Congenital, lenticular and capsular.	Good.	Discission twice. O. D.		16 dys.	Patient not seen, to record vision.
77	9	M.	Good.	O. D. O. S.	Good.	" once. O. S.		7 dys.	
78	24	F.	Good.	Congenital. Cannot fix.	Fair.	O. D. Iridectomy. Six months later, linear incision and forceps used. Some vitreous.		22 dys.	22 dys. V = Jäger 14. Fingers at 7'.
79	24	F.	Good.	Ditto.	Fair.	O. S. Iridectomy. Five months later, linear incision, and, with forceps, capsule and cretaceous material removed. Both pupils clear, and ophthalmoscope shows very irregular papillæ.		18 dys.	Counts fingers. Goes about.
80	10	F.	Good.	Congenital, central. Spreading.	Fair.	O. D. Punctured four times. Subsequent iridectomy and extraction with forceps six years after, mother refusing before.		28 dys.	5 months. V = 20-50. Snellen 1.
81	10	F.	Good.	Ditto.	Fair.	O. S. Punctured four times, and, six years after, also iridectomy and removal of capsule and cretaceous mass by forceps.		21 dys.	5 months. V = 20-40. Snellen 1.
82	7	F.	Good.	Congenital.	Good.	O. D. Discission. Again in five months. Again in six months, and will need future extraction of capsule.		11 dys.	Not yet taken.
83	7	F.	Good.			O. S. Ditto. Ditto. Ditto.		11 dys.	
84	39	M.	Fair.	Congenital. Post. pol.	Normal.	O. S. With Graefe's knife iridectomy upwards. Lens and capsule removed with scoop and forceps. Third day, traumatic iritis. Finally subsided, and patient allowed to go home to return for further operation.		29 dys.	Count fingers now.
85	18	M.	Good.	Congenital.	Normal.	O. D. Iridectomy downwards. Patient very violent after ether.		11 dys.	4 yrs. V = 20-100. J. 2.
86	18	M.	Good.	Ditto.	Normal.	O. S. Ditto. Ditto. Ditto .		11 dys.	Ditto. Hm. = 1-30.
87	33	F.	Good.	Congenital.		O. D. Graefe's operation, small, upwards. Whole mass removed with forceps. Patient had been operated on other eye, and could, with it, just see to go about.		10 dys.	30 days. J. 16 and V =1-10.
88	14	M.	Good.	Cong.; doubt.	Good.	O. D. Discission.		4 dys.	6 mos. V=20-50. Sn. 3.

REPORTS OF ONE HUNDRED AND FIVE CASES OF OPERATION FOR CATARCT. (CONTINUED.)

No.	Age.	Sex.	General Health.	Quality and Duration of Cataract.	Functional Examination.	Method of Operating. Incidents. Anæsthesia. Remarks. After treatment.	Duration of Treatment.	Resulting vision nd date of Record.
89	19	F.	Good.	Congenital.	Good.	O. S. Discission. Repeated five months later. After second operation, a piece of lens laid against iris, and caused nausea and vomiting for some days.		1 year. Vision noted. Still improving.
90	25	F.	Fair.	Congenital, large central.	Fair.	O. S. Iridectomy and capsule opened. Cortical left for fear of vitreous.	16 dys.	6 mos. V=20-100. J. 6.
91	25	F.	Fair.	Ditto.	Fair.	O. D. Small Graefe upwwrds. Pupil cleared with forceps.	14 dys.	10 mos. V=20-100. J. 6.
92	51	M.	Good.	Congenital, central and	Good.	O. D. Iridectomy downwards. Patient writes, "he is much satisfied and reads all day." The gradual closure of the pupils with age	12 dys.	Jager 14. 12 days.
93	51	M.	Good.	slight opacity outs. nucleus.	Good.	rendered iridectomy necessary. O. S. Ditto. Ditto. Ditto.	12 dys.	Jager 1.
94	12	F.	Good.	Congenital, both O. D. Small central. O. S. complete.	Good.	O. S. Small Graefe upwards, and forceps used for capsule. Pupil cleared and papilla seen; not natural.	14 dys.	Vision greatly improved.
95	9 m.	F.	Fair.	Congenital		O. D. Discission twice, and, afterwards, hook with broad needle.		Fundus O. D. seen.
96	9 m.	F.	Fair.	and nystagmus.	Fair.	Capsule tough. Cornea thin. Operations very difficult. No irritation. O. S. Discission twice, and hook the same as O. D.		O. S. not so well.

SOFT CATARACT IN ADULT.

97	21	F.	Poor.	Soft. O. S. O.D. 2-3 stump from some previous operation.	Good.	O. S. Linear incision and iridectomy. Capsule pulled and broken with cystitome. Little vitreous. Case did well.	13 dys.	1 month. V = 10-30. Snellen 3 1-2.

TRAUMATIC CATARACT.

98	29	M.	Good.	Traumatic. O. S.	Good.	O. S. Iridectomy upwards, and cataract removed with curette. Capsule to be broken through	17 dys.	17 days. V = 10-20.
99	57	M.	Good.	Traumatic? Glaucoma.	Normal.	Small Graefe upwards. Done to relieve great pain. Cataract soft, but good-sized nucleus. Iritis fifth night, from an accidental blow. Persistent, but yielded to treatment.	23 dys.	4 months. V = 20-80. Snellen 1 1-2.

100	18	M.	Good.	Traumatic posterior synechia.	Good.	O. S. With a large knife an iridectomy made, including the posterior synechia; through this, with forceps and curette, lens evacuated. Taken sick with lung trouble and sent to Mass. General Hospital.	11 dys.
101	14	M.	Good.	Traumatic. Piece of cap.	Good.	O. S. For pain, broken lens removed by lance knife. Capsule fastened in corneal wound. No history till after operation. Patient did well, and saw fingers in one month. Afterwards returned with pain, and eye removed with piece of cap in it.	
102	42	M.	Good.	Traumatic.	Fair.	O. S. Iridectomy downwards and outwards, and lens evacuated. Considerable cortical left. There were anterior and posterior synechiæ.	5 dys.
103	14	M.	Good.	Traumatic. 2 years. O.D.	Good.	Small Graefe upwards. O. D. Small Graefe upwards. Vitreous fluid, and flowed at once.	14 dys.
104	25	M.	Good.	Traumatic. 2 years.	Good.	Through this, capsule and sticky lens removed. Did well till fifth day. Patient struck eye in sleep. Bleeding, iritis, &c., but finally did very well.	19 dys.
105	27	M.	Good.	Traumatic. 2 years.	Good.	O. S. Small Graefe upwards. Enlarged. Lens substance absorbing at end of twenty-five days.	25 dys.

Patient saw small objects, and will have good vision.	
One month, counts fingers. Globe removed afterwards.	
Five days. Sees stone in finger-ring.	
14 days. V = 20-50. Snellen 1 and 1-2.	
2 1-2 months. Vision = 20-40.	
Record says good vision.	

MALIGNANT PUSTULE.—Dr. Max. Bartels reports a case (*Langenbeck's Archiv*, 16 Bd. 2 Heft). of this affection occurring in a girl 14 years of age, the pustule being seated upon the right shoulder. The treatment consisted of free incisions and applications of fuming nitric acid. The patient made a good recovery. She stated that three similar cases had occurred within a fortnight among her acquaintances, in all of whom the pustules appeared upon the face. With one exception, all these persons were employed in picking horsehair, great quantities of which they were obliged to have about their house. Recently, this hair was noticed to be more dusty than usual. The brother of the patient, who had also contracted the disease, had not worked upon the hair, but had, nevertheless, spent a good deal of time in the room where the hair was being picked.

[When malignant pustule has prevailed in the hair factory at Walpole, in this State, it has been noticed in several instances that the hair was at that time matted together with crusts, scales and other morbid substances, that had apparently proceeded from diseased animals. —REPORTER.]

FATAL HÆMORRHAGE FROM THE EAR.—At a recent meeting of the Buda-Pest Surgical Society, Dr. Böke related the particulars of two fatal cases of hæmorrhage from the ears, and took occasion to oppose the tying of the carotid artery, when in such cases the hæmorrhage is the result of caries.

The first case was that of a sailor, 22 years old, who died after experiencing for fourteen days severe hæmorrhage, accompanied by vomiting. The autopsy revealed extensive necrosis with loss of substance in the *tegumentum tympani*, the anterior and posterior wall of the *tympanum* and also of the *canalis facialis*. The source of the hæmorrhage was found to be the *bulbus venæ jugularis*.

In the second instance, that of a sailor, aged 43, there was found, at the autopsy, caries of the *tegumentum tympani* and a communication between the *sinus petrosus inferior* and the cavity of the tympanum.—*Centralblatt für Chirurgie*, Sept. 19, 1874.

Progress in Medicine.

REPORT ON DISEASES OF THE CHEST.

By F. I. Knight, M.D.

(Concluded from page 324.)

Inhalation of Compressed and Rarefied Air. Transportable Pneumatic Apparatus of Waldenburg.

Since the communication of M. Tabarie to the *Académie des Sciences* on this subject, in 1832, compressed air has been used to a limited extent in the treatment of affections of the respiratory organs.

Tabarie's apparatus consisted of a wrought-iron, spherical chamber, capable of accommodating from one to a dozen patients; air, under a pressure of from one-half to two-thirds atmosphere, was forced into the chamber by a pump worked by steam. An arrangement attached to the apparatus afforded egress to the air expired by the patients. Each sitting lasted two hours, the requisite pressure was produced gradually during the first half hour, and after being continued for an hour, was gradually withdrawn during the last half hour (Cohen). Gustav Lange improved and simplified this apparatus, making it cylindrical in form, and so arranged that rarefied, as well as compressed air could be used (Waldenburg). Hanke (1870), in Vienna, employed compressed and rarefied air locally in the treatment of affections of the respiratory organs. In Hanke's apparatus, be it understood, only the respiratory organs, and not the whole body (as in the cabinet), were subjected to the change in the presence of the air.

Waldenburg has recently attracted considerable attention to this method of treatment by inventing a more suitable apparatus, and by publishing some excellent results of treatment. (*Berliner Klinische Wochenscrift*, nos. 39, 40, 46 and 47, 1873.)

In the *British Medical Journal* (April 11, 1874), Waldenburg himself gives a *resumé* of the subject. He says that pneumatometry has shown how important it is to study inspiration and expiration separately. It appears that in one class of diseases the inspiratory power may be intact, or even increased, while expiration alone is interfered with. This condition is seen, principally, in emphysema. In another class, as phthisis in the first stage, only the inspiratory power is diminished, while the expiration is quite or nearly normal. The idea naturally suggests itself that it could be of importance for therapeutics to operate upon inspiration and expiration separately. Waldenburg at first tried Hanke's apparatus, which is dependent on a pump arrangement, but found it insufficient, as it worked with a very limited and continually varying power. He therefore constructed another apparatus, which consists of two cylinders, each 39 inches high, the inner one being 10½ inches in diameter, the outer one 11.8 inches. The inner cylinder is closed at the top, and cords fastened to the top of it pass over wheels attached to a frame-work above. The apparatus is filled with water to the height of about 7·8 inches. Weights being attached to the ends of the cords draw up the cylinder, and thus rarefy the air in it. The pressure of the atmosphere upon the cylinder amounts to about 1,300 English pounds. According to the weight attached, the

air is rarefied in a ratio which may be exactly calculated; the weight of the inner cylinder, which amounts to about ten pounds, being allowed. When, for instance, thirty pounds are attached, this gives a net weight of twenty pounds, which corresponds to about one-sixtieth of the atmospheric pressure (12 millimetres on the mercurial guage attached to the apparatus). From the inner cylinder, a tube proceeds to a mask, which may be firmly adjusted upon the face, and which is provided with a cock in such a manner that either the air in the cylinder is shut off, and communication only with the outside air exists, or, *vice versâ*, the connection with the latter is broken, and the mask communicates only with the air of the cylinder. If the cock be opened while the weights are attached, the cylinder sucks air in with a constant force (in the above example, one-sixtieth of atmospheric pressure), and rises. If the mask be now firmly held before the nose and mouth, and an expiration made while the cock is open, the air is drawn out of the lungs with constant force, and expiration assisted. We may also inspire, if we choose, rarefied air. Should it be desired, on the contrary, to employ compressed air, the cylinder is first raised by attaching weights; these are then taken off, and weights laid upon the cylinder. If, for example, ten pounds be laid on, we work with a power of twenty pounds (= one-sixtieth of an atmosphere) and, again, the mercurial guage shows a pressure of twelve millimetres, but in the opposite direction. The cock being opened, the condensed air streams out under constant pressure, and may be employed for inspiration. Waldenburg has investigated the effects of condensed and rarefied air on healthy and diseased persons, and arrived at very important results, which follow with almost the certainty of a physical experiment. The power which he usually employs, both for rarefication and condensation, amounts, generally, to one-sixtieth to one-fortieth of an atmosphere (20 to 30 lbs.); in exceptional cases, he has gone as high as one-twentieth of an atmosphere. For *inspiration* of rarefied air, however, he employs a much smaller force, usually one-three-hundredth to one-hundredth of an atmosphere.

A. Effects upon respiration. 1. By inspiration of condensed, and by expiration into rarefied air, the ventilation of the lungs is for the time being increased. Persons, for instance, with a vital capacity of the lungs of 4,000 cubic centimetres, inspire or expire several hundred cubic centimetres, or even 1,000 to 2,000 centimetres more than their vital capacity amounts to. The thorax is, therefore, by the inspiration of condensed air, more widely expanded than is otherwise possible by the deepest inspiration; on the other hand, by expiration into rarefied air, the lungs contract more than is otherwise the case in forced expiration; or, in other words, by expiration into rarefied air, a part of the residuary air is drawn mechanically from the lungs. 2. By continued employment, both of inspiration of compressed and expiration into rarefied air, the vital capacity of the lungs is gradually considerably increased. In several cases of emphysema, Waldenburg has seen the vital capacity within a few weeks increase by more than 1,000 cubic *centimetres;* in the case of one gentleman, it rose within fourteen days from 2,800 to 4,000 cubic *centimetres.* In accordance with this, it could be proved by percussion that the previously abnormally expanded lung gradually contracted and returned to its normal limits. 3. By means of the pneumatometer, we may show with cer-

tainty that the power of inspiration, as well as the pressure of expiration, increases by the use of the pneumatic apparatus, and often very considerably so. For instance, a person suffering from emphysema had, when he came under treatment, an inspiratory power of 130 *millimetres*, and exerted by expiration a pressure of 100 *millimetres*; within fourteen days, the former increased to 150 *millimetres*, the latter to 140 *millimetres*. In the case of a phthisical patient, with inspiration of 60 millimetres, and expiration of 90 millimetres, both increased within six days to 110 millimetres.

From these results, the indications for treatment become self-evident. Expiration into rarefied air is chiefly used for emphysema of the lungs; and retraction of the expanded lungs, which may be shown by percussion to have taken place, is with certainty to be accomplished. Anatomical lesions cannot, of course, be done away with. Inspiration of compressed air is indicated where it is desired to enlarge the thorax and expand the lungs, especially as a prophylactic against phthisis in the first stage of consumption, in conditions consequent upon pleurisy, in pleuritic effusions after tapping, for inducing artificial respiration, &c.

B. Effects upon the heart and circulation. Physiology teaches us that the mechanism of respiration has an essential influence upon that of circulation. The lungs enclosed air-tight in the thorax, exert a negative pressure upon the heart and the great vessels, and this is greatest during inspiration; the blood is, as it were, sucked out of the veins, and pressure in the aortic system is diminished, as seen in the kymographion. Two well-known, physiological experiments (Johannes Muller, Ed. Weber, Donders) prove that by changing the pressure in the lungs, the heart's action may be powerfully influenced, so much so as to cause apparent death. In the first place, by means of as deep and as long-retained inspiration as possible, with the mouth and nose closed, the pulse may be made completely to disappear. Secondly, by forcibly expelling air, after a deep inspiration, with the glottis closed, circulation may be likewise impeded, and even brought to a stand-still. In the first experiment, the negative pressure of the lungs is largely increased, and thereby the power of the heart so diminished that it can no longer act; in the second experiment, the negative pressure is changed into a considerable positive pressure, and thereby the flow of blood from the veins into the heart is completely checked. The pneumatic apparatus enables us to make use of the mechanical effects of the increased and diminished pressure upon the heart and vessels for therapeutical purposes, and the power to be applied may be exactly regulated according to weights or mercurial pressure. Waldenburg has obtained the following results with it:—

1. Inspiration of compressed air. By this the pressure in the lung is increased; it becomes less negative; or, with a sufficient degree of compression, is converted into a positive pressure. The necessary consequences of this are the following:—*a*. The pressure in the aortic system is raised; the pulse becomes more resistant, and even hard. *b*. The flow of the blood from the heart into the aorta is increased; the pulse becomes fuller and larger. *c*. The flow of the blood from the veins into the right side of the heart is checked; the jugular veins are plainly seen to become turgid. Inasmuch as more blood streams into the aortic system, and less flows from the veins, there arises an

increased fulness of blood in the greater circulation, while the heart and lungs are disburdened of the blood. Expiration into compressed air works in a like manner, only more energetically; this is, however, on account of the disturbance of respiration, less capable of being therapeutically utilized.

2. Inspiration of rarefied air. The effect of this is quite the reverse; the pressure of the lungs becomes still more strongly negative, with these results. *a.* The pressure in the aortic system is diminished; the pulse loses in tension, and becomes soft. *b.* Less blood flows out of the heart into the aorta; the pulse becomes smaller and less full. *c.* The diminished pressure connected with a widely-expanded thorax draws the blood more forcibly from the veins into the right side of the heart; the jugular veins collapse visibly. *d.* Inasmuch as less blood flows from the left side of the heart, and more blood is drawn into the right, there follows an increased fulness of blood in the chest, and a diminished fulness in other parts of the body.

Similar, only less energetic, is the effect of expiration into rarefied air. The indications, according to these physiological premises, are clear. The inspiration of compressed air is indicated where the flow of blood from the lungs and left side of the heart is impeded, especially in insufficiency or stenosis of the mitral and of the aortic valves. In several cases of insufficiency of the mitral valve, with alarming symptoms, Waldenburg has obtained the most brilliant results from the application of compressed air. Furthermore, compressed air is indicated in chronic inflammatory processes of the lungs, as in phthisis, in bronchial catarrh, and in chronic hæmoptysis. Compressed air works in all these cases like a venesection which is confined to the organs of the chest.

Inspiration of rarefied air is, on the contrary, indicated where there exists an impediment to the flow of blood in the veins, especially in stenosis, or insufficiency in the valves of the right side of the heart. It is further to be employed to bring about a greater fulness of blood in the lungs, especially as a prophylactic means in persons with a consumptive tendency, where, at the same time, it serves also as the best gymnastic exercise for strengthening the muscles of the thorax. This agrees with the theory advanced by Waldenburg and others (see his work on Tuberculosis, &c.) concerning the etiology of phthisis, according to which the insufficient fulness of blood in the lungs disposes to cheesification. In these cases, however, from the grounds at first alluded to, inspiration of compressed air should be combined with it. The contra-indications are also suggested by the physiological premises. Rarefied air should not be used in hæmoptysis or disposition thereto, nor in erethitic inflammation of the lungs. Compressed air is contraindicated in abnormally increased pressure in the aortic system; in congestion of the brain, where the coats of the vessels are not intact, giving rise to the apprehension of ruptures, and especially in the so-called apoplectic habit.

Various modifications of Waldenburg's apparatus have been proposed by Cube, Störck and Biedert, of which Störck's is absurd, the others of doubtful utility.

Sommerbrodt confirms the remarkable success of Waldenburg in the treatment of bronchial catarrh by this means.

Boston Medical and Surgical Journal.

Boston: Thursday, October 8, 1874.

It is not yet twelve months since the death of the unfortunate Mrs. Crie, who asked for ether, but was killed by chloroform, administered by Dr. Eastham, but we have already another victim sacrificed to this same idol. Charles Linscott, a strong and healthy brakeman, entered the office of Dr. O. P. Rice on September 26th, to have a tooth extracted. After some fruitless attempts, the dentist administered chloroform. A witness, who was present a part of the time, said that the deceased asked for ether; Dr. Rice said that he consented to chloroform. There not being enough of the anæsthetic, more was sent for, under which the patient died in the usual way. Dr. Rice rubbed the dying man's face and hands with ammonia, put a little morphia on the tongue, and made some apparently inefficient, certainly ineffectual, attempts at resuscitation. Coroner Ainsworth was called, and ordered an autopsy and an inquest; from the testimony given at which, we have condensed the above account of the death. The autopsy was made by Dr. A. B. Hall. The membranes of the brain were very much congested, as were also the lungs. There were pretty extensive adhesions from an old pleurisy on the right side. The heart was healthy. The abdominal viscera were rather darker than usual, but otherwise normal. The blood was dark and fluid in all parts of the body. Most of the organs emitted an odor similar to that of a cloth on which chloroform had been used an hour or two previously. Drs. George H. Gay, R. M. Hodges and Norton Folsom gave the oft-repeated testimony to the danger of chloroform, and to the safety of ether. The jury found that the chloroform was the cause of death, declared its use to be unjustifiable, and recommended a law to prohibit it.

Here is the same sad story, which has been told so often, again repeated. A healthy man wishes to have a trifling operation painlessly performed; the practitioner wantonly, sometimes in disregard of the request of his patient, uses a dangerous anæsthetic when he might use a safe one, and sends the victim to his account, leaving, often, a family without support. The practitioner knows that this accident has happened to many, and may happen to any one, and that no skill in administration or resuscitation is sure to avert the fatal result; but he has already fifty, one hundred or a thousand times recklessly endangered the lives entrusted to him without accident, so, confident in his impunity, and exclaiming with the ungodly, "tush! none of these things shall happen to me!" he takes the risk once too often. We

hold that, in the light of morality, this conduct is criminal, and we hope that the coming Legislature will make it so in the eye of the law.

One of the most common sources of astonishment to the educated foreigner visiting this country, of mortification to the profession and of injury to the community, is the extensive and often indecent advertisement of quack medicines, which have received a quasi endorsement by the government in the form of a patent. Patents were originally intended to secure to the inventor who, by industry and genius, had made some useful discovery, a proper reward for his services to humanity, by forbidding others to borrow the fruits of his labors without making him some return, and so far the system is just and worthy. The use, however, which has been made of it in favor of medicinal nostrums can not certainly have been anticipated by its originators. They can never have intended that this plan should have been extended so as to include the liberal professions ; that the physician should not be at liberty to prescribe to a man in pain any given combination of drugs without paying a bonus to the one that first combined them ; nor, on the other hand, to confer a kind of respectability on useless and, for the most part, injurious compositions. The harm done to the community is beyond computation, and, sad to say, is by no means confined to the lowest classes, but pervades the whole of society. An eminent practitioner once remarked to us that the tendency to quackery is as natural as that to sin, and, this being the case, it is evident that our best course is as much as possible to remove the temptation.

The variety of temptation, in other words the number of advertised and patented medicines, is incredible ; and even if it were true that each one were good for some particular form of disease they must do great harm, none the less, as they are advertised as useful for every kind of complaint. One inventor declares that " even if a person ain't sick, taking this remedy will make him feel good ;" but does not inform us if benefit comes from a spiritual or a spirituous ingredient. We know for a fact that several of these nostrums convey great satisfaction to the strict teetotalers of New England. Another benefactor promises relief to the lower animals, as well as to man ; " my remedy will cure bots in horses, and rheumatism, sprains, chills, yellow fever and smallpox in man." In point of fact, few of these mixtures are of any special value for anything, and many are even dangerous ; and, what is much to the point here, few have really the element of novelty which entitles them, viewed as mechanical compositions, to a patent.

We are deeply gratified to learn that there is at last hope of a reform. Dr. Robert G. Dyrenfurth, the new Principal Examiner in the department of chemistry, has lately refused a patent to one of these

mixtures. After some references to show that it is already well known, his argument runs as follows:—

"But beyond mere questions of novelty, I wish to call attention to the following reasons why protection should not be given to so-called inventions of this and a kindred nature.

"Such patents have, it is true, been granted, but it is not too late to stop. 1. (Having reference to this particular case and others where mixtures are called compounds.)

"Each one of a number of ingredients being used alone to attain the result which it is said a mixture of all will produce; or even separate ingredients being put into mixture to perform separate functions, or meet separate indications within the human body, a mere mechanical assemblage of such ingredients, there being no chemical union, is not a novel and patentable *compound*.

"2. There is no invention in mixing a number of drugs, all of which have been used alone to produce the result wrought.

"It may be claimed that invention is unnecessary in a composition of matter, that the spirit of the law does not require it, that inasmuch as Section 24 provides that any person who has invented or *discovered* any new and useful art, machine, manufacture or composition of matter, may, under certain conditions, obtain a patent therefor, the term *discovery* applies to compositions, *invention* to the rest. Yet, even if this be the case, and while the difference between *invention* and *discovery* may be that, under the former, a new thing is created, under the latter something already existing is found, which produces novel and unexpected effects in a line not analogous to anything to which the thing has been applied before (even if this be the case, I say), applicant has done nothing to entitle him to a patent, for he has not even made a discovery. His ingredients but perform their well-known functions. Generally, however, the term 'discovered' has no force, except when its meaning is synonymous with that of invented.

"3. To write a prescription is again not invention, nor yet a patentable discovery, but rather a matter of skill.

"The tyro in medicine is taught the effects of the various remedies, and is told that he may mix or combine certain of them. He is taught, furthermore, how, under the various complications of disease, a number of drugs may be simultaneously indicated and administered. A complication, or even a single symptom arising where the skill of the physician would point out to him that a number of drugs were necessary, his prescribing these, mixing them in *any* required proportion and exhibiting them, would be ascribable to such *skill*, but would not be *invention*.

"4. The granting of patents upon the various prescriptions is pernicious, *first*, because the same nostrum cannot be taken with benefit by all persons, even for the same disease, i. e., the one disease (they are usually sold to cure a score, the absurdity of which ought to be apparent to every one) difference in diathesis requiring different remedies; such patents thus generally inure to the benefit of one (the patentee), and the misery of many; and, secondly, for the following reason: A certain mixture of well-known drugs being indicated, the *already existing knowledge* (his schooling) of the physician of such fact should not be trammeled by the further fact that some enterprising individual had already taken to himself a monopoly (that is a grant

which restrains others from the exercise of a right or privilege which they had before the grant was made) of just this mixture, in contravention of public policy and the welfare of man.

"5. And, finally, if this or any other prescription be an invention, then the thousands of physicians throughout the world must make thousands of patentable inventions every day, an *invention* being thus, in fact, unfolded to mankind every time an original prescription is written by a competent leech. ROBERT G. DYRENFURTH,

Principal Examiner U. S. Patent Office."

The law is lax, and we fear that this decision may not be supported; but in any case, Dr. Dyrenfurth deserves the gratitude of the whole country. He has done his part, it is now for the profession to use all possible influence to obtain a new and a better patent law, which shall recognize no so-called medical discoveries.

MEDICAL BOARD OF BELLEVUE HOSPITAL.—The following is the Medical Board of Bellevue Hospital as constituted by recent resolutions of the Commissioners of Public Charities and Correction.

Consulting Physicians and Surgeons.—John T. Metcalfe, B. W. McReady, William H. Van Buren, Isaac E. Taylor, Fordyce Barker, Lewis A. Sayre, Alexander B. Mott and John J. Crane.

Visiting Physicians and Surgeons.—Austin Flint, Sr., James R. Wood, Alonzo Clark, Henry B. Sands, Alfred L. Loomis, Stephen Smith, Wm. B. Eager, Ernst Krackowizer, Edward G. Janeway, Frank H. Hamilton, Francis Delafield, Thomas M. Markoe, William H. Thompson, Erskine Mason, Gouverneur M. Smith and John W. S. Gouley.

Correspondence.

MESSRS. EDITORS,—The gentleman who reviewed the Transactions of the North Carolina Medical Society in your JOURNAL of Sept. 17th, either did not read my paper on Puerperal Eclampsia carefully, or misrepresented it intentionally. Either view of the case, you will readily perceive, is not especially creditable to a reviewer; but I am charitable enough to suppose that he read my article hastily and carelessly, and then reviewed it without any intention of doing me an injury. He says, "whatever the underlying condition be, he (Dr. Payne) would bleed with a boldness perfectly terrifying to those who believe 'the lancet a relic of barbarism.'" The gentleman has no authority from anything stated in my paper for saying "whatever the underlying condition be, he would bleed," because, on the contrary, it is distinctly stated "that I am decidedly in favor of blood-letting as a mechanical means of relief, not only in the *apoplectic*, but also in *many cases* of the uræmic forms of puerperal eclampsia, and no mention whatever is made of bleeding in those cases which are caused by cerebro-spinal reflex irritation of uterine origin. I very freely admit that I may "bleed with a boldness perfectly terrifying to those who believe the lancet a relic of barbarism," since the mere sight of a few small drops of blood is quite sufficient to cause their cheeks to blanch, their frames to tremble, and their knees to shake, and who, "while they dare not strike for fear, would make it virtue in them to forbear."

My reviewer says, "in one case, seventy ounces were taken *pleno rivo*, and the patient 'recovered well.'" This is a perversion, not only of my meaning, but of the facts as stated. My language is plain! "He had bled her before my arrival some forty or fifty ounces. I sustained the doctor fully in his treatment, and we made a *larger opening in the vein*, from which we abstracted *twenty ounces more of blood, pleno rivo.*"

Again, he says, "as concomitant treatment, Dr. Payne gives opium and morphia in full doses." This is true so far as it goes, but it does not do me full justice.

These are my words: "Now I will not pretend to deny the efficacy of chloroform, chloral hydrate, ether, bromide of potassium, veratrum viride, and the preparations of opium in this disease, because I know their potency; but, while they may accomplish all the good ends claimed for them, still, instead of resorting to either of them alone, I prefer to *combine their use* with that of *venesection* in the *greater majority* of cases." I speak of active purgation, also, and one of the cases reported was treated with *chloroform and morphia alone.* My reviewer further remarks: "Not only is bleeding practised thus to control convulsions, but when, during pregnancy, any premonitory signs of uræmia present themselves, the lancet is also resorted to, and it is regarded 'as a significant fact that not one of these cases, during a practice of nearly twenty years, has ever had a puerperal convulsion.'" Here is another distortion. The following words are mine: "And not only do I believe all this, but I feel assured that blood-letting is a most potent remedy for good as a prophylactic in threatened convulsions. It has generally been the custom for those of my patients who expect to be confined, to put themselves under my care some time before confinement, and whenever they have complained of "vertigo, dimness of vision, ringing in the ears, sudden flushings of the face, a sense of fulness of the head, and a tendency to somnolency at any time *during the latter part of gestation*, I have almost invariably bled them *(en passant* I do not regard the above symptoms as absolutely pathognomonic of uræmia). But when patients with such symptoms have presented themselves I have *most frequently bled them;* and I regard it as a significant fact, that not one of those who have thus come under my care during a practice of nearly twenty years, have ever had a puerperal convulsion."

The doctor closes his notice of my article by observing, "Dr. Payne's method, although undoubtedly 'heroic,' would not, in all latitudes, be regarded as orthodox."

The gentleman does me more than justice here, because I do not think it can be considered "heroic" in me to follow the practice of the *very best* obstetricians now living, or who have lived in the years gone by; and I may be permitted to remark that I prefer what I believe to be truth, to what may be regarded orthodoxy in one latitude, and heterodoxy in another.

I have no doubt that Satan himself can give most plausible evidences of the soundness of his opinions, and I have no doubt that his opinions are regarded as orthodox in many latitudes outside of his own dominions. "A prophet is not without *honor* save in his own country." And I am sure that neither does my reviewer, nor do I, desire any better recognition of our opinions in any latitude simply that we may be regarded as *en haut ton.*

Yours, very truly, R. L. PAYNE.

Lexington, N. C., Sept. 27, 1874.

FRACTURE OF BOTH PATELLÆ FROM MUSCULAR ACTION.

MESSRS. EDITORS,—The following case illustrates an injury sufficiently rare to warrant its presentation in the JOURNAL.

Mrs. M., aged 38, is a well-developed, strong woman, weighing one hundred and seventy or eighty pounds.

Last May, while crossing from the curbstone to the street, by a misstep, she turned the foot obliquely, and, to save herself from falling, made violent muscular exertion, when "something gave away in both knees," and she sank to the pavement.

She was taken in a carriage to her home in Brighton, where, soon after, I saw her. Both patellæ were separated transversely, near the middle, the upper fragment lying two inches above its fellow. Ligamentous union supervened, with separation of the fragments from one-quarter to half an inch. Truly yours, HENRY O. MARCY.

Cambridge, Oct. 1, 1874.

Medical Miscellany.

Dr. Nelson, of Danville, Ky., reports, in the *American Medical Weekly*, the case of a child with apparently three phalanges in each thumb. Prof. Leidy thinks the appearance due to excessive development of the trapezium.

Dr. Sidney Ringer and Wm. Murrell report in the *Lancet* excellent results in the treatment of winter cough and bronchitic asthma by the inhalation of ipecacuanha.

Artificial disease of the kidney in rabbits has been produced by Dr. Zielonko, of St. Petersburg, by tying a ligature round the aorta so as to cause a certain amount of stenosis.

Prof. Michel, of Nancy, has tied the interosseous artery of the arm for a bullet wound in the fore-arm, hæmorrhage continuing in spite of ligature of the brachial in its lower quarter, and of the ulnar and radial in their upper third.

The most characteristic serial which comes under our notice is the *Nashville Journal of Medicine*, which, for a combination of highfalutin talk, dashed with a shade of rowdyism, is not to be surpassed.—*British Medical Journal.*

Human and Animal Virus.—The discussion on the vaccination question at the Paris Academy of Medicine appears to have been almost as exciting as some at the National Assembly. It was finally decided that nothing had been shown to prove that heifer virus was inferior to human, and the government was advised to make re-vaccination obligatory.

Abnormal Physical Developments.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, Dr. P. H. Watson alluded to the case of a young lady who was covered with a hirsute downy covering, or lanugo, to such an extent that she could not appear in society. Her relatives wanted something to be done for her, and sea-bathing was recommended; but soon after, when her menstruation began to be established, the extra hair covering entirely disappeared.

The Family Bonaparte.—Madame Letitia Rattazzi, one of the members of the family Bonaparte, has for some months been visiting the principal towns of Europe, to study the ways and means of establishing a hospital which shall be especially devoted to the treatment of cancer. As is well known, several of the members of this family have succumbed to this terrible disease. The first deposit will be 150,000 francs, to which will be added a biennial prize of 5,000 francs for the best work on the subject, as well as a sum of 20,000 francs for him who shall describe the true cure for cancer.—*The London Medical Record.*

Maternal Impressions.—There was an extended and very interesting discussion of this subject at the meeting of the British Medical Association. Mr. Clapperton, who read the paper, cited several curious cases, and thought that the phenomenon was not confined to human beings. Dr. Coyder, who had formerly been an unbeliever, stated that he changed his views after a remarkable case in his own practice. He amputated the finger of a man in the presence of his daughter, then one month pregnant. She was much impressed, and her child had the corresponding finger wanting. The general opinion of those taking part in the discussion appeared to be that these cases were more than coincidences, but some gentlemen dwelt on the fact that a great number of frights are received by pregnant women without any bad results, even when they dread them. Dr. Fothergill stated that his mother had feared that he would be born minus an arm, which, however, had not been the case.

PHYSICAL PECULIARITIES OF NEGROES.—Dr. A. W. McDowell publishes, in the *American Practitioner*, some observations on this subject which contain some facts that are new to us. The negro's want of power of resisting disease was abundantly shown in the late war. Dr. McDowell states that the fine chests frequently seen among the males are due solely to the great development of the pectoral muscles, and that the lungs are decidedly less in weight than those of white men. The liver, on the other hand, is larger. He goes on to say, "The negro's lower bowel was smaller. The colored troops were much troubled with constipation, often requiring purgatives, while at the same time and place the white troops had diarrhœa. The most marked difference existed between the spleen of the black and that of the white, the former only weighing half as much as the latter. 'Ague cake' was one of the sequelæ of malarial disease observed among the whites, but not among the blacks." In his army practice, the author weighed the brain at every *post mortem*, and found that its weight increased in direct ratio to the admixture of Caucasian blood.

DEATH OF DR. ANSTIE.—Death has claimed another victim from the foremost ranks of the profession in the person of Dr. Anstie, Physician to the Westminster Hospital, and well known by his writings on hygiene and therapeutics, and as editor of our excellent cotemporary, *The Practitioner*. Several cases of severe illnes having occurred in the School of the Royal Patriotic Fund, at Wandsworth, Dr. Anstie was called in to advise as to the causes and means of prevention, as well as to the treatment of the sufferers. With a disregard of principles which he would most strenuously have insisted upon in others, he spent several hours on Sunday, the 6th inst., in these investigations, exposed to sewer-gas, and resumed them on Tuesday, the 8th. In the evening of that day, he complained of being unwell, and, notwithstanding the unremitting attention of his friends, Dr. George Johnson and Dr. Burdon Sanderson, he died on Saturday of blood-poisoning, occasioned, primarily, from a puncture in the hand whilst engaged in a *post-mortem* on one of the pupils.—*Medical Press and Circular.*

THE SIMPSON MEMORIAL.—The result of a movement, set on foot shortly after the death of Sir James Y. Simpson, has been that nearly £6,000 has been subscribed for the purpose of founding a memorial in his honor. It has been determined to hand over £3,000 of that amount to the Maternity Hospital in Edinburgh, on condition that it shall be supplemented by an equal sum, to be applied towards the erection of a new building, with which the name of Simpson shall be associated, and that the remaining portion shall be applied to the erection of a statue of Sir James Simpson in some public place in Edinburgh.—*British Medical Journal.*

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and towns for the week ending September* 26, 1874.

Boston, 173; Worcester, 23; Lowell, 28; Milford, 4; Chelsea, 10; Cambridge, 22; Salem, 12; Lawrence, 22; Springfield, 11; Lynn, 17; Gloucester, 3; Fitchburgh, 9; Newburyport, 7; Fall River, 43; Haverhill, 5; Holyoke, 11; Pittsfield, 4. Total, 404.

Prevalent Diseases.—Cholera infantum, 79; consumption, 57; dysentery and diarrhœa, 29; typhoid fever, 20; pneumonia, 13; scarlet fever, 11; whooping cough, 11.

Fall River reports twenty-five deaths from accident.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 3, 150. Males, 82; females, 68. Accident, 3; apoplexy, 6; asthma, 1; inflammation of the bowels, 3; bronchitis, 4; disease of the brain, 6; cancer, 3; cerebro-spinal meningitis, 2; cholera infantum, 22; consumption, 23; cyanosis, 1; debility, 9; diarrhœa, 14; dropsy, 1; dropsy of the brain, 2; drowned, 1; dysentery, 1; diphtheria, 2; erysipelas, 2; scarlet fever, 2; typhoid fever, 8; gastritis, 2; disease of the heart, 6; hernia, 1; intemperance, 2; jaundice, 1; locomotor ataxy, 1; inflammation of the lungs, 4; marasmus, 6; old age, 1; paralysis, 1; premature birth, 1; peritonitis, 1; puerperal disease, 1; disease of the spine, 1; teething, 1; tumor, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 79; between 5 and 20 years, 13; between 20 and 40 years, 26; between 40 and 60 years, 20; over 60 years, 12. Born in the United States, 119; Ireland, 20; other places, 11.

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Original Communications.

ANGINA PECTORIS, ILLUSTRATED BY THE CASE OF CHARLES SUMNER.*

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MR. PRESIDENT,—The terms of the resolution requesting this paper confine it to the consideration of "what is known of the pathology and treatment of angina pectoris," and asks for "illustrations from the case of Charles Sumner, who was for several years under my care."

So little has been definitely settled by the profession concerning its "pathology and treatment," that but a moment or two of your time would be consumed in the statement of known facts, and I shall therefore request permission in the outset to go somewhat outside of your request, that I may refer as well to some of the opinions which have been entertained from time to time by prominent medical men within the last century.

It is now a little more than one hundred years since this disease first received a name and a place among the ills which afflict the human race.

Dr. Heberden, in 1768, first described angina pectoris, and declared that it was caused by organic disease of the heart. His articles were published in the second and third volumes of the Transactions of the London College of Physicians, since which time very little of its real pathology, if any, has been discovered, and almost nothing has been definitely decided in regard to its treatment.

In 1779, Dr. Parry wrote "an inquiry into the symptoms and causes of 'syncope anginosa,' commonly called angina pectoris."

For many years after this work, the most weighty authorities united in attributing it to a sudden impediment in the coronary circulation. A weak, flabby condition of the heart was held by equally good men to be its undoubted cause for a number of years.

It being clinically true that during an attack, and in many cases during the interval, the impulse of the heart is weak and the pulse intermittent, it was argued that any cause which would produce these symptoms was therefore a cause of angina. And under this head were classed fatty degeneration, attenuation of the ventricular walls, insufficiency of the aortic valves, with regurgitation; but, as a rule, the majority of writers placed as its chief operating cause a defective coronary circulation.

* Prepared at the request of the Medical Society of the Alumni of the Medical Department of Georgetown College, Washington, D. C., and read May 4, 1874.

Some went so far as to declare this to be the only cause, and endeavored to prove that as a result of partial or complete occlusion of one coronary artery by ossification or atheromatous deposit, the heart, thus getting only a part of its blood supply, would be weak, and exhibit symptoms similar to fatty degeneration.

Dr. Stokes, the great Dublin authority on chest diseases, concludes that angina sums up the symptoms of a weakened heart, and connects it with disease of the coronary arteries.

Dr. Copeland thinks a variety of morbid changes in the heart may predispose to it.

Dr. Latham has written considerably to prove it to be caused by spasm of the heart, and insists upon its analogy to cramp in the voluntary muscles, and upon the efficacy of opium in relieving the distress. There is no doubt of the similarity in some respects of the agonizing pain and sense of constriction of the chest in angina, with the cramp of some of the voluntary muscles. It is, however, known to be true that this stroke of cramp or spasm of these muscles may continue in a state of absolute rigidity for a variable length of time, while there is required on the part of the heart constant relaxations, in order to admit the blood into its cavities from the return venous circulation, and that cramp or spasm of the heart would as much interfere with its functional action as a shock of paralysis.

It was until recently believed that this disease was always connected in some way, but exactly how no one attempted fully to explain, with some of the various pathological conditions of the heart or large arteries.

Niemeyer says angina pectoris is found almost exclusively in persons suffering from organic disease of the heart. Either ossification of the coronary arteries, valvular defects, hypertrophy, degeneration, or aneurism of the aorta has been found upon autopsy of most persons who have been afflicted in this manner. Nevertheless, we cannot regard angina pectoris as indicative of any of these diseases, not one of them being constant. And the malady itself always takes the same form, while the structural alterations differ most widely.

He calls it "nervous disorder of the heart," and quotes the term "cardiac neuralgia," to which these various organic changes merely afford a predisposition.

In certain rare instances, he has seen it where no organic disease existed, particularly in old obese persons.

Watson was of the opinion that it was a symptom of fatty degeneration, and considerable doubt began to be expressed if it was confined to cases of trouble with the coronary arteries; also whether there was any relation of cause or effect in its production assignable properly to disease of these arteries.

Wood states that in some cases it has been connected with tenderness of the spine. He thought that causes which resulted in the production of gout, rheumatism and neuralgia, when not present in sufficient force to produce any of these diseases, might produce angina, or that metastasis might occur. This is a comparatively rare affection.

Flint has seen 150 cases of organic disease of the heart, and only 7 of these had symptoms of angina.

He did not see a single case during the five years of a large private and hospital practice. He is of the opinion that it has a probable

connection, pathologically, with organic disease of the heart, but upon what pathological condition or circumstance common to different forms of organic disease it depends, is not yet ascertained.

He accounts for the suddenness of death in this very reasonable way, viz., he attributes it to over-accumulation of blood in the ventricular cavities, and arrest of the heart's action from paralysis. This disease has been noticed in persons where no pathological condition of the heart was present. In these cases, the great prostration and sense of impending death did not seem so great as where it had originated in some organic disease of the heart.

It is generally estimated, however, that the danger of sudden death in angina is proportioned to the gravity of the cardiac lesion which has given rise to it. There are several cases on record where the original disease of the heart has proved fatal without any of the angina symptoms making their appearance during the fatal attack.

Flint shows our lamentable ignorance upon its pathology as follows: "Of measures calculated to postpone or prevent the recurrence of its paroxysm, little is to be said, because we are unable to state upon which condition, of the various cardiac lesions, angina depends for its production," and he "knows of no remedies upon which reliance can be placed to effect a cure. Clinical discovery not having led to any means of striking at its root, it is doubtful if any special medication is to be pursued with a hope of effecting a cure, or in exerting a positive influence in lengthening the period of exemption from recurring attacks."

Handfield Jones, in his work on diseases of the nervous system, describes angina pectoris among functional troubles, and arrives at a positive opinion that it is a neuralgia. In answer to objections raised that neuralgia is never suddenly fatal, Jones declares that while neuralgia may be comparatively trivial when affecting the tri-facial or sciatic nerves, yet when it attacks the cardiac plexus it becomes a very grave affair. He accounts for the suddenness of death on the ground of the implication of organs which reside at the seat of life, and explains that were the heart not required to keep up the life of the patient, death need not take place, and would not, with the same amount of disease in any organ not constantly required to maintain life.

Roberts says, "angina pectoris or the 'breast-pang' is *supposed* to be a neurotic affection, associated with the cardiac plexus, accompanied with, according to some, spasm, and according to others, paralysis of the muscular tissue of the heart."

A majority of the cases of which he gives record have originated in connection with extensive atheromata or calcification of the coronary arteries, fatty degeneration or flabby dilatation of the ventricular walls.

Aitken thinks that it should be regarded rather as a symptom of organic disease of the heart, than as a disease by itself.

Bellingham, who is quoted by Aitken, says that the pain of angina so nearly resembles the agony of dyspnœa that he has been led to the declaration that angina is to the heart what dyspnœa is to the lungs, and has called it "dyspnœa of the heart."

Reynolds calls it "the neurotic disease," and recommends arsenic for its cure.

Jones speaks of the depressing influence of certain matters taken into

the stomach upon the heart, and mentions cases where disagreeable heart symptoms had followed the drinking large draughts of cold water, eating indigestible food; and classes tea among the occasional causes of angina pectoris.

I have thus far referred only to the authority and opinions of others. I shall hereafter draw from my own experience, when it is necessary to enforce, illustrate or corroborate the views which I may state.

During the three years of my professional intercourse with Mr. Sumner, I was a constant witness to many phases of this disease, and, in connection with Dr. Brown-Séquard, saw all treatment fail of a cure, while it is probable that our patient was indebted to morphine alone for the temporary alleviation of the terrible agony which its frequent attacks caused him.

Referring to the opinion of Jones, while Mr. Sumner never suffered from more than one attack of indigestion in his life, it was his habit to drink two cups of strong tea at breakfast, and I think he took considerable pride in his taste and skill in the selection of the best brands. He only drank it in the morning, and his attacks of angina appeared, as a rule, in the latter part of the day, frequently in the night.

I think the cause for their occurring so frequently at night during the winter of 1872 and 1873 was directly traceable to his sleeplessness, and the nervousness and exhaustion resulting therefrom.

I think I was able to trace this relation between his bodily vigor and power of endurance and the frequency of his paroxysms.

This inability to sleep well developed itself soon after the Presidential election and the death of Mr. Greeley, and as soon as he could be made to sleep nights these attacks grew less frequent.

The fact of his drinking tea was known to all his physicians, but none of the distinguished number, in this country or in Europe, ever advised him to suspend its use as a prevention of angina.

In my connection with this case, I have observed a curious fact, which it may be interesting to refer to here. I mean the unusual number of patients suffering from this disease, who, previous to Mr. Sumner's severe illness, had never supposed that they had any disease of the heart.

This fact has been referred to by newspaper correspondents, viz., that during the illness of Mr. Sumner, and especially since his death, instances of its occurrence have considerably increased, and especially among those who strongly sympathized with the late Senator.

This seemingly sympathetic cause of disease has been noticed in other cases. Probably, most physicians who have had much hospital experience have seen a case of hysterical convulsions followed immediately by several others, in women, who previously never had an attack, and in a lying-in-ward I have seen a case of puerperal convulsions act as an exciting cause of eclampsia in other occupants waiting to be confined.

I have been consulted by as many as thirty individuals, since Mr. Sumner's death, who imagined they were afflicted with his complaint. In some of these cases, there was organic disease of the heart, but in a majority of them there was no cardiac trouble at all.

Two weeks after the autopsy in Mr. Sumner's case, one of the physicians who assisted, a devotedly attached friend of the deceased, died of angina pectoris. I am informed that Dr. Hitchcock had but a few

attacks, and that, prior to Mr. Sumner's death, he had never been a sufferer from angina. I am not aware of his age, but, as I remember him the day of the *post-mortem*, he was an erect, elderly gentleman.

I have myself suffered two attacks very closely resembling, if they were not really, angina. One occurred immmediately after Mr. Sumner's death, when greatly exhausted by constant attendance at his bed-side.

Dr. Brown-Séquard, having arrived in town that evening, in response to my telegram announcing the sinking condition of our distinguished patient, heard of my illness, and kindly came to my aid. After carefully examining the heart, and finding nothing abnormal, yet he said there were present the undoubted phenomena of a paroxysm of angina. He prescribed absolute rest in bed, artificial heat applied, a sinapism over the heart, and internally wine, opium and quinine.

The pain was soon allayed, and I slept quietly until morning.

I was present the next day, at the request of Messrs. Hooper and Pierce, to witness the taking of a plaster cast of the face and head of the Senator, by Mr. Preston Powers, and to prevent any injury to the expression or features. The room was the same in which the death occurred, and its chill, together with all its surroundings, induced, I am disposed to think, a renewal of the pain. This passed off soon after leaving the house. The second came on a few days ago, while preparing this paper. It was probably produced by a re-awakening of those recollections and sympathies which were so active in the causation of the first.

While conversing with friends or physicians upon the subject of these attacks, the pain has several times become greatly aggravated; and, *per contra*, when suffering severely, if I became intensely interested in any subject foreign to myself, the pains would abate, and if my attention remained absorbed any length of time, entirely disappear. How many times physicians have noticed this fact in nervous diseases! Toothache and neuralgia afford every day illustrations.

Trousseau agrees with other later authorities in classing angina as a neuralgic disease. He says, "in spite of the numerous publications which treat of angina pectoris, the history of that complaint is not very satisfactorily known, and the various opinions which have been expressed as to its nature have thrown so little light upon the subject that he wishes, in his turn, to communicate his views upon this singular *neuralgia*."

He refers to the views which formerly ascribed its chief cause to disease of the coronary arteries, or to some disease of the heart, simply to deny that there exists any relation of cause or effect, and says that these diseases do not generally produce any neuralgic symptoms.

In the absence of appreciable structural changes found in many autopsies, and from the extreme variability of the characteristic phenomena which he describes, he concludes that angina pectoris is a neurosis, or, to use a more positive term, a neuralgia.

Brown-Séquard says angina pectoris has no "common name." On the evening of my illness, he said to a reporter at my house (they followed him everywhere during the few hours he remained in Washington that day), in reply to a question as to what angina really was, "it has no common name. It is a very painful disease, accompanied by its own characteristic symptoms, and, although it has some points of

resemblance to neuralgia, in reality it is not that disease, but is just what we see it is," and what that is, it is difficult in the face of the authorities quoted for me to say.

Brown-Séquard has more than once referred to Mr. Sumner's case, in letters to me suggesting treatment, as "our case of pseudo-angina."

Flint, for a while, made two divisions in his description of this disease, naming that form *pseudo*-angina which was not, or was supposed not to be, produced by disease of the heart, and *true* angina which was attributed to some discoverable organic lesion. In his last edition, he speaks of angina with, and angina without, disease of the heart, but in both cases calls them neuralgia.

Roberts settles down to what he calls three predisposing causes of this disease, viz., *male sex, advanced age, and high social position.*

These three causes were all present in Mr. Sumner's case.

Sir John Forbes, by diligent search, collected 88 cases, and found that only 8, or 1 in 11, were females, and that in 84 of those cases, the age was given, and that 72 of this number were above 50 years of age; 49 died suddenly, and 43 of them had unmistakable disease of the heart.

A considerable number of more recent writers in the journals are convinced that angina is essentially a neuralgic disease. Some have placed its seat in the diaphragm, others in the respiratory muscles, but most frequently its location is placed in the heart. Here, the neuralgia is said to affect the cardiac nerves given off by the pneumogastric, and radiates frequently to the nerves of the cervical and radial plexus. In patients suffering with angina pectoris, the pain down the left arm and in the left elbow is sometimes nearly as severe as that in the heart.

Mr. Sumner suffered greatly in this way. When the pain lasted any length of time, the ulnar side of his left hand would be almost paralyzed, and numbness would occasionally remain for hours after all pain had subsided.

When patients are seized with an attack, they are frequently compelled to stop where they are and remain perfectly still, taking only half an inspiration, lest any motion should prove instantly fatal.

This was not the case with Mr. Sumner. He would at times get ease by walking the floor, and was unconscious of any increase of the agony by this exercise. Sometimes, when an attack would occur in the street, or while walking, he would find relief by leaning against a tree or upon the arm of a friend, or by resting his elbows upon some hard substance upon the same plane with his shoulders. This is a usual symptom in angina. Paroxysms, as a rule, take place suddenly, are severe while they last, and terminate as abruptly as they commenced. In his case, the rule was that they were preceded by "slight murmurings" or shooting pains about the heart. I remember two instances, however, of being hastily summoned in the night, to his bedside, only to find on my arrival that the agony had all ceased. Once he told me that he "had not expected to survive until I reached him, but the moment he heard my voice in the hall, the pain was gone."

Mr. Sumner's first attack of angina, of which I have any knowledge, occurred in Paris, while undergoing that form of treatment which Brown-Séquard described "as a martyrdom, causing the greatest suffering which can be inflicted upon mortal man." He says in another

place—in a Boston lecture—"and so he passed through that terrible suffering, the greatest I have ever inflicted upon any being, man or animal." He referred to the moxa which he had applied in six different places along the spinal column of his patient.

It may be as Wood says, that this first attack originated in tenderness or irritation of the spine, and it has always been Brown-Séquard's theory that much of his sufferings, and *possibly* his death, was caused by spinal irritation.

At no time during the life of the Senator was any disease of the heart diagnosticated, and his chest had been ausculted by the best diagnosticians in this country and in Europe.

This attack in Paris came on suddenly, and with great severity. Brown-Séquard was sent for, but, having gone out of town to see a patient, did not arrive for eight or ten hours, during which time Mr. Sumner was suffering the greatest agony. When the Doctor finally arrived, his patient was in a state of partial syncope, pale, surface cold, and covered with clammy perspiration; pulse intermittent, feeble and slow. Large doses of morphine, sinapisms over the heart, hot mustard foot baths, dry heat applied to the body and limbs, produced reaction, while the morphia suspended the pain. Mr. Sumner had one other attack, which he described as very similar to the first, before he came under my care. The treatment was about the same, only the morphia was injected subcutaneously, producing its effect more quickly, and thus saving him much severe pain.

The history of this disease varies greatly in different patients, in its mode of attack, length of interval, and in the intensity of the agony produced. Thus, while some may be overcome by the first seizure, leaving doubt as to the cause of their death, others may survive several hundred. A patient may have one very painful and prostrating paroxysm, and may never have a second; but as a rule, others will follow, it may be, at a considerable interval, or they may occur in quick succession. There is a wide-spread, popular dread of a third attack.

At first, direct causes can be assigned, such as a great strain, exhaustion, anger, sudden fright, excitement or emotion; but as they increase in frequency, no cause can be traced. They will come on when the patient is perfectly quiet, or while asleep. The first attack since my connection with the case occurred on the evening of Prof. Tyndall's first lecture in Washington.

The bad air in the poorly-ventilated lecture-room, together with the slight shocks produced by the alternating darkness and brilliant lights during the chemical experiments of the professor, had fatigued his eyes and brain, perhaps, and, on coming out of the crowded hall, he ran a few steps to overtake a car, and immediately after taking his seat the pain came on.

Patients who are the victims of this terrible disease, instinctively avoid active exercise, such as walking against the wind, up hill or flights of steps hurriedly, or soon after a hearty meal.

The length of the interval between the attacks is governed by no law which we know anything about. In Mr. Sumner's case, a cause which would produce an attack at one time had frequently no effect when repeated. Again, a sudden turn in his easy-chair, while quietly reading at night, would start up a most tearing agony, while at other times an excited speech in the Senate, accompanied by the most forci-

ble and muscular gesticulation, would not create even the suggestion of pain. After a very quiet day at home, wholly undisturbed by exciting causes, physical, mental or moral, he has been awakened out of a sound sleep, without even a dream for a cause, by a paroxysm of pain, which would only be alleviated by large, hypodermic injections of morphia.

It is the tendency of this disease to produce death suddenly, and, as a rule, by collapse. Next to the fearful pain, one of the most characteristic symptoms is a sense of impending death; and this foreboding intensifies with the number of seizures.

It is said of John Hunter, who was a terrible sufferer from angina, that he declared to his class "that his life was in the hands of any person or circumstance which should act powerfully upon his mind," and, in fact, he ultimately died in St. George's Hospital, from strong but suppressed feelings upon a point in which he was greatly interested. John Leach, of the London Punch, died, after several attacks of angina, at the age of 54.

A very unpleasant feature of this disease is the knowledge that one is at the mercy, so to speak, of unfriendly circumstances, coupled with the uncertainty of obtaining successful medical treatment.

The patient becomes aware, after a time, that he may be fatally attacked at any moment, and this sword of Damocles suspended constantly over his head, together with the pain and the necessity to momentarily regulate his actions and emotions, renders his life such a burden to him that he is not unwilling for it to fall, and cut asunder his slender thread of life.

Mr. Sumner has remarked to me several times, "Dr. Johnson, this *treacherous* disease produces in my mind a positive uncertainty, when I go out of my house, whether I shall ever enter it again a living man, and, with the pain I have to suffer, makes my life such a burden that the sooner it does its work the better I shall be pleased. Life, at the price I have to pay, is not worth the having."

Mr. Sumner had, probably, as many as an hundred of these attacks. At first, a distinct cause could be assigned for each recurrence. The interval between them varied in length from two years to twenty minutes. After they began to take place more frequently, they seemed to lessen in severity.

Mr. Sumner dined, uniformly, at six o'olock. His usual hour for retiring was twelve. It has been urged by some non-medical, and, therefore, incompetent judges, that during his fatal attack "the late Senator was a great sufferer from indigestion, and that he really died for the want of an emetic." The truth is, that his digestion was remarkably perfect. He frequently said to me, and to others in my hearing, that he "could eat any and everything with absolute impunity, except lobster, and this article of diet gave him the only attack of indigestion which he ever suffered since the time of his boyhood, when he ate green apples and sour grapes."

Angina occurs, as a rule, very abruptly, and terminates as suddenly as it begins. With Mr. Sumner, slight, shooting pains through the heart, and down the left arm would often precede an attack. Later, he suffered more frequently at night than in the daytime. He was never able to exactly describe the pain. He would say "that it seemed much like the sudden grasp of a cold hand, which gradually tightened, until it felt like a clasp of steel crushing his heart to atoms."

Da Costa makes use of this same expression. He says "its main feature is an agonizing pain in the præcordia, as if the heart were being firmly grasped by an invisible hand, or, as it were, being torn to pieces." He remarks, further on, by way of assisting us to a pathological solution of this mystery, that the immediate conditions upon which the symptoms of the attack depend, lie veiled in obscurity. Other authors say we do not know what the precise causes of this angina are, but we do know that they occasion paroxysms of the most intolerable anguish.

One author goes so far as to say that the pangs of angina are greater than those of child-birth, and much harder to bear, inasmuch as the anticipated result in one case is the addition of a life to the world, while in the other, the probable result is the death of the sufferer. So far as my experience goes, there is no pain which compares with that in angina pectoris, and few cases, if any, combine so much real physical agony with such keen anxiety concerning the final result.

I have not much to say of its treatment, for the reason that we know so little of its causes or pathology. The fact is we do not know what to treat.

Niemeyer says, "it is doubtful if it be in our power to relieve the paroxysms of angina pectoris by any means of medication." He declares that opiates and other narcotics are to be avoided. The weight of authority, however, you will find to be decidedly in favor of morphia in some form, administered in such a way as to accomplish its result most speedily.

Hypodermic injections of some of its preparations have been entirely effective, in my hands, in controlling the pain, and produce, so far as I know, no more disagreeable after-symptoms than when administered for the relief of other painful affections. Sinapisms applied over the region of the heart, friction of cold hands, limbs and feet, hot mustard pediluvia and dry heat, in cases of syncope or collapse, with the usual arterial and diffusible stimuli, combine about all the most useful remedial measures which may be prescribed during an attack.

During the interval, if the cause be known, or can be ascertained, it should be treated upon the same principles which would be indicated were there no angina, and in any case all known aggravating habits or circumstances should be avoided, and great care used to keep up the general tone and power of the circulatory, nervous and digestive systems.

Wood, in the last edition of his materia medica, only a few months ago published, speaks of the nitrite of amyl, and of its pretended specific influence in this disease. After referring to its being first suggested by Dr. Lauder Brunton, in an article published in the *London Lancet*, 26 July, 1867, and reprinted from the London Clinical Society's Reports, vol. iii., goes on to say, "the pathology of these cases of 'heart-pang' is not definitely made out, and so it seems useless to speculate how the nitrite acts in many cases, but there is now abundant evidence of its value in relieving, almost instantly, agony which has resisted all other treatment."

This remedy was faithfully and repeatedly made use of in Mr. Sumner's case, on the suggestion of Dr. Brown-Séquard, without any amelioration of his sufferings. The bichloride of methyl was also used without any good results. I cannot speak with any positiveness of

the general usefulness of these two remedies, as my experience with them does not extend beyond this case.

The following is a copy of my despatch to Dr. Brown-Séquard, written at Mr. Sumner's bedside:—

{ Washington, D. C., Senator Sumner's House, 6, A. M., 11th March, 1874.

{ Dr. C. E. Brown-Sequard, 18 East 29th St., New York City.

Mr. Sumner had a very severe attack of his angina at 9, P.M. I applied the remedies heretofore successful, and, after one repetition in half an hour, he became quiet and slept. Then came a fearful attack of terrible pain in the heart, followed soon by great prostration, cold, clammy surface, from which he has not up to this hour revived, and his pulse is growing very weak, hardly perceptible at the wrist. Heat externally applied, and brandy and ammonia internally, do not produce reaction. Tracheal and bronchial râles are very loud, and he is gradually sinking; eyes glassy and vision dim. Mr. Sumner has been your patient for fifteen years or more, and I hope you will come at once to him. Answer. Jos. Taber Johnson, M.D.

A reply came before 9 o'clock, addressed to Mr. Sumner's private secretary, that he should leave on first train.

The following despatch was received by me about 11 o'clock.

{ New Brunswick, N. J., 9½, A.M., 11th March, 1874.

{ Dr. J. Taber Johnson, At Senator Sumner's House, Washington, D. C.

Apply galvanism round chest, on insertion of diaphragm.

Brown-Sequard.

The condition of the patient had by this time become so hopeless, that it was decided, by the Surgeon-General and Dr. Lincoln, whom I had called in consultation at the time of telegraphing Brown-Séquard at 6, A.M., to be utterly useless, and as it was thought that the effort of being moved in the bed might prove instantly fatal, it was never used.

Mendacity of Quacks.—The *Pacific Medical and Surgical Journal* speaks as follows:—

If Satan has ever succeeded in compressing a greater amount of concentrated mendacity into one set of human bodies above every other description, it is in the advertising quacks. The coolness and deliberation with which they announce the most glaring falsehoods are really appalling. A recent arrival in San Francisco, whose name might indicate that he had his origin in the Pontine marshes of Europe, announces himself as the "Late examining physician of the Massachusetts Infirmary, Boston." This fellow has the impudence to publish that his charge to physicians in their own cases is $5.00! Another genius in Philadelphia, of the bogus diploma breed, who claims to have founded a new system of practice and who calls himself a "Professor," advertises two elixirs of his own make, one of which is for "all male diseases" and the other for "all female diseases"! In the list of preparations which this wretch advertises for sale as the result of his own labors and discoveries, is *ozone!*

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

Pathology.

"Waxy Degeneration" of Muscular Fibre.—Dr. Weihl (*Virchow's Archiv*, 1874, p. 253) gives the results of a series of observations concerning this condition, first mentioned by Bowman in 1841.

The term was applied by Zenker, in 1864, to that condition of striated muscular fibre where the contents of the primitive fibril are converted into homogeneous masses of varying form and size, possessing a dull, waxy lustre. These masses are quite brittle, and do not essentially differ, chemically, from the contents of normal muscular fibre. He regarded this change as a nutritive disturbance, produced by fever, and due to the rapid reception of new material by the contractile substance. It was observed in typhoid and scarlet fevers, acute miliary tuberculosis, cerebro-spinal meningitis, articular rheumatism, tetanus, &c.; also in the arms of an insane person who had been confined in the straight-jacket. Other observations, before and since, show that this condition has been seen in almost all febrile diseases, in cases of injury, and in the vicinity of morbid growths.

Its origin has been regarded by some as purely mechanical; others considered that the process consisted in a coagulation of the myosine, with subsequent contraction. The change has also been viewed as merely a *post-mortem* one. Cohnheim, however, found it in the tongue of the live frog twenty-four hours after the local supply of blood had been cut off, and quite independent of any direct mechanical violence.

In Weihl's experiments, the frog was used, and it was ascertained that changes resembling, and probably identical with, those of "waxy degeneration" could be produced in the tongue of the live frog in various ways. Since they could be produced voluntarily and immediately, it seemed evident to him that they could not be regarded as a degeneration or as an inflammation. He further considered them as probably due to a coagulation of the contractile substance of the muscle.

In this connection, the investigations of Popoff (*Centralblatt*, 1873, No. 44) are interesting. He observed the effect of polarized light on muscular fibre. The double refracting substance of the muscular fibre was not altered by the "waxy degeneration." He concludes that this change in infectious diseases is rather an appearance accompanying other signs of inflammation of the muscular fibre than an actual process of degeneration.

Fatty Degeneration of the Heart caused by Anæmia.—It is now long since Virchow called attention to the anatomical peculiarities of that form of anæmia to which the term chlorosis is applied, and within a recent period he has again referred to this matter. He regards it as very probable that regularly in such cases there exists, congenitally, a lack of development of the vascular apparatus, especially of the heart and aorta; so that, at the outset, these are abnormally small, and are subject to pathological changes, fatty degeneration, &c., at a very early period.

Cases have been recorded where an extreme degree of anæmia has arisen and terminated fatally, the only evident lesion being a fatty degeneration of the heart. Gusserow was among the first to call attention to this condition, and reported *(Archiv für Gynäkologie*, 1871, p. 218) five cases where an extreme degree of anæmia developed during pregnancy, apparently without cause, and terminated fatally. In three cases, the heart was found to be fatty degenerated. Biermer soon after called attention to this "progressive pernicious anæmia," and distinctly separated it from simple anæmia. He spoke of its clinical aspects, the pallid skin, the œdematous feet, hands and face, the debility, dizziness and palpitation. There was loss of appetite and occasional diarrhœa. Attacks of fever were noticed, though of no tpyical character. An anæmic souffle was heard, often so loud as to suggest valvular disease. Capillary hæmorrhages occurred in the retina and skin, more rarely in the kidneys. Minute cerebral hæmorrhages were suggested by slight and temporary paralytic attacks. Dropsical effusions occurred towards the close, and intervals of delirium.

Notwithstanding the excessive anæmia, there was no diminution in the amount of fat. The only anatomical changes were the fatty degeneration of the heart and the hæmorrhages. He considered the frequent presence of intestinal catarrh a cause of the anæmia.

Ponfick *(Berliner Klinische Wochenschrift*, 1873, No. 1) regarded this subject from an anatomical point of view, and called attention to a peculiar form of spotted fatty heart, of normal dimensions and with healthy valves, which occurred more particularly in females, from the twentieth to the fortieth year, and which was associated with a marked degree of anæmia. To this, he applied the term anæmic fatty heart. The alterations of the bloodvessels found by Virchow in chlorosis were at times present, but to a slight degree. Changes in the other organs of the body were of relatively trivial importance and were apparently secondary. The gland cells of the liver, kidneys and stomach presented a greater or less degree of fatty degeneration. Jaundice was frequently present. The total amount of blood was apparently diminished, the red corpuscles decidedly so; likewise the fibrine. Evidence of dropsy was almost constant, as hydrothorax, anasarca or ascites. Ponfick found that these conditions occurred in women with protracted convalescence after delivery, in cases of acute disease, in chronic gastric or intestinal affections with exhausting diarrhœa, and, finally, in persons who had suffered from the loss of blood.

Immermann *(Deutsche Archiv für Klinische Medicin*, 1874, p. 209) regards the disease as different from other forms of anæmia, owing to the lack of a sufficient cause; its excessive degree and union with alterations of the organs of circulation; the occurrence of fever without an anatomical basis; its progressive character and fatal result. He considered that the absence of emaciation was of great value in the differential diagnosis. Ponfick, in several instances, from the extreme pallor of the corpse, or of an organ, was able to anticipate the fatty condition of the heart. Immermann considers the disease to be allied rather to chlorosis and leucæmia, though in no way to be identified with either. It lacks the splenic and glandular swelling of the latter, and is distinct from Addison's disease in that there is no discoloration of the skin. From acute albuminuria, it differs in that there is little or no albumen in the urine.

Its etiology is exceedingly obscure. Immermann calls attention to the occurrence of the greater number of cases hitherto reported in a limited district, the canton of Zurich, and lays weight upon this fact, though unable to recognize an essential or specific cause. Other cases have occurred elsewhere, however, at Dresden and Heilbronn, and the etiological value of a limited local disposition must be regarded as slight.

Perl (*Virchow's Archiv*, 1874, p. 39) endeavored to prove, experimentally, that anæmia resulting from loss of blood would give rise to this form of fatty heart. Dogs were used, a certain number being bled a few times, but to a large extent each time. From the others, small amounts of blood were drawn frequently. The animals of the first series gradually fell into a state of marasmus, lost their appetite, became debilitated and finally died from exhaustion. In some instances, œdema occurred; there was no evidence of fever. The heart showed generally a fatty degeneration of the muscular fibres, most marked in the papillary muscles. The dogs, from whom small quantities of blood were frequently drawn, recovered, were killed, but their hearts were apparently unaltered.

(To be concluded.)

Dr. Snow, the Superintendent of Health and City Registrar of Providence, expresses, in his report for September, the following views concerning typhoid fever:—

"It is a common opinion, very frequently stated, and very generally accepted, that the foul emanations from sink drains, cess-pools and privy vaults are one of the most important, if not the chief cause, of typhoid fever. My observation does not confirm this theory. The disease prevails much the most in the country, where, if these emanations exist, they are largely diluted by the free circulation of air, while thousands in the city who breathe the foul air from these sources constantly, are *comparatively* exempt from it.

"Again, the cases of typhoid fever in this city are as often in the comfortable and cleanly dwellings as in the poor and filthy. Of the decedents in September, five were of American and four of foreign parentage; of the 667 decedents from typhoid fever in seventeen years—1856 to 1872—there were 370 of American and 297 of foreign parentage.

"Again, I have known some marked instances of severe typhoid fever, evidently caused by decomposing vegetable matter, with no aid of sink drains or other nuisances. In one instance, several families in one house had typhoid fever, apparently caused by thirty bushels of rotten potatoes in the cellar.

"I think that typhoid fever is caused chiefly by the decomposition of vegetable substances, and that for this reason, it is far more prevalent in the country than in the city."

Cremation a Cause of Indian Cholera.—The remarkable statement is made, in a recent number of the *Belgic Abeille Médical*, that the immense number of corpses burned by the Hindoos, who are compelled by the worship of Brahma to burn their dead, is the real cause of Asiatic cholera. The poisonous gases generated in this way hover in the air during the day, but at night sink into the lower atmosphere, mixing with the water and various kinds of food, and permeating the lungs in the process of respiration. In Hindostan, the Asiatic cholera is endemic, yet, subject to certain influences in the atmosphere, it becomes epidemic, and then causes ruin and destruction in the remotest countries.—*The Clinic.*

Bibliographical Notices.

The Physiology of Man. By Austin Flint, Jr., M.D., In five volumes. Vol. V. Special Senses: Generation. New York: D. Appleton & Co. 1874. 8vo. Pp. 517.

The present volume is the fifth and last, and also in some respects the best, of the author's series of physiological text-books. In criticizing it, it is proper to bear in mind a difficulty to which the author alludes in his preface as attending the preparation of such a work in this country, the difficulty, namely, of getting access to original publications, owing to the want of complete libraries of special subjects in America. The danger of quoting at second hand has impressed itself upon the writer, as it must upon every one who attempts to exhaust the literature of any subject. A noticeable improvement on the earlier volumes is to be found in the increased number of citations of German authorities, and though these are often taken from French translations, still it is evident that Dr. Flint has, in preparing the latter volumes of the series, acquired a much greater familiarity with German physiological literature than he possessed when engaged on the earlier part of the work.

The volume begins with a chapter on touch, including a short and rather confused discussion of the muscular sense. According to the author, "the weight of evidence is decidedly in favor of the view that there is no distinct perception of muscular action, aside from general sensibility, that can properly be called a muscular sense." Yet in the next paragraph we read that our appreciation of differences of weight "is chiefly due to the sense of resistance to muscular effort, and has little dependence upon the sense of touch."

The second chapter, on the olfactory nerves and their function, is a good *resumé* of our knowledge of this least understood of all the special senses.

The chapters on sight and hearing, which occupy nearly half the volume, can scarcely be regarded as satisfactory, considering the precision with which these subjects are capable of being treated and *are* treated in such works as those of Helmholtz. Of course, an exhaustive treatment like that of the latter writer is not to be expected in a general text-book; but carefulness of preparation and accuracy of statement may fairly be demanded of a writer who seeks to give instruction on these questions. That the author has failed entirely to comprehend the theory of color as expounded by Young and Helmholtz, is evident from his statement that when colors are mixed on the retina by means of a revolving disc, "the resultant color appears precisely as if the individual colors had been ground together."

The physiology of taste is exceedingly well discussed, and the reasons for accepting the view of Lusanna, that the lingual nerve owes its gustatory function to the anastomosing fibres of the chorda tympani, are clearly and forcibly given.

The last half of the volume is devoted to reproduction and development. The description of these processes is, as a rule, clear and concise, and is illustrated by judiciously chosen figures, the somewhat complicated development of the genito-urinary apparatus being admirably elucidated by means of an excellent plate borrowed from Henle's Anatomy.

The value of the volume is greatly increased by a general index to the whole work.

On the whole, it may be said of this series of text-books that, though they contain a great deal of valuable information on physiological subjects, given in an agreeable and easy manner, yet, owing to a want of familiarity of the author with many of the most important contributions to modern physiology, they cannot be regarded as fulfilling the object which the writer had in view, viz., "to represent the existing state of physiological science."

B.

The Complete Handbook of Obstetric Surgery. By CHARLES CLAY, M.D. Philadelphia. 1874. Pp. 328.

IN this volume are arranged, alphabetically, brief accounts of the various emergencies which may occur in obstetric practice, with short rules for the treatment suitable in such case. The only possible use to which such a book can be put to advantage, is for the purpose of cramming students for examination, for it cannot be conceived that the author would seriously advise a practitioner of medicine to carry such a book about with him in his practice.

For practical purposes, the work is too concise, and the rules presuppose a knowledge of obstetrics which would render the use of the book unnecessary. Imagine, for example, a physician attending a case of labor and his patient is suddenly seized with convulsions. Out of his pocket comes this Handbook, and, under the head of convulsions, he finds this advice:—"If convulsions continue after delivery, try chloroform, opium, sol. antim. tart.; if coma, try leeches, ice-cap, blisters, &c." The patient would stand a better chance, it seems to us, in the hands of a physician who did not depend, in times of emergency, on such a *vade mecum.* Seriously considered, the matter is altogether too condensed and in some respects behind the times, as, for example, the rules for version, presentation of breech (in which latter case, by the way, the author advises the doctor to announce a *cross birth* [?]), &c.

The book may find purchasers among students, but it is to be hoped that the profession will not depend on such pocket-guides to methods of practice.

A Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M.D. Fourth Edition. Philadelphia. 1874. Pp. 801.

THE appearance of the fourth edition of this work so soon after the third, would of itself attest the value which gynæcologists have placed upon this admirable treatise on the diseases peculiar to women. The book has been already translated into German, and the present edition is in process of being translated into both French and Italian.

In yielding to the demand for a new edition, Dr. Thomas has not suffered the opportunity to pass of still further adding to the value of a work which has always been highly esteemed by the profession. The present volume, while it contains much that is new, has been kept within the limits of the earlier editions by the omission of portions which later investigations have proved to be either imperfectly or incorrectly stated, and by the condensation of much which is thus greatly improved.

A large part of the book has been re-written, as, for example, the two chapters on Ovarian Tumors and Cysts, which, in this edition, take the place of the four chapters in the edition of 1872, which were devoted severally to Ovarian Tumors, Peri-uterine Fluid Tumors, Solid Tumors of the Ovary, and Composite Tumors of the Ovary. The chapter on Ovariotomy has been altered to correspond with the latest changes in the operation, especial stress being laid on the great value which the author attaches to the use of the drainage tube.

The chapters on misplacements of the uterus have been greatly condensed, while at the same time they contain much that is new and far in advance of the ideas contained even in the third edition. A chapter on Sarcoma of the Uterus has been added, and that on Cancer of the Uterus greatly altered. The influence of ovarian disease in the production of dysmenorrhœa has been recognized by the introduction of a section on Ovarian Dysmenorrhœa.

Many of the illustrations which are to be found in the earlier editions, having been deemed superfluous by the author, have been omitted, while others, though retained, have been greatly improved, as, for example, the substitution of a number of carefully drawn wood-cuts (fig. 42, 66, 75, &c.) in the place of the mere outline drawings. A large number of new illustrations have also been added.

It will therefore be seen from this brief notice of the book that, in many respects, the present edition is a great improvement on those which have preceded it, and which were themselves acknowledged by all gynæcologists as among the ablest treatises on the subject.

The Medical Register and Directory of the United States. By SAMUEL W. BUTLER, M.D. Philadelphia. Office of the Medical and Surgical Reporter. 1874. Pp. 854.

THE directory has at length appeared, and is, on the whole, a very creditable work. The amount of labor involved must have been very great, and, as far as we have seen, there are few mistakes. The States are arranged in alphabetical order, and the list of the practitioners in each is usually preceded by that of those in one or more of the larger cities. The medical institutions, hospitals, schools, societies, &c. are briefly mentioned. The geographical and hygienic peculiarities receive attention; and analyses, stated to be reliable, are given of the waters of the various mineral springs.

The only serious criticism we have to make is that the book tells us too much. The list should have been limited to the names of members of the regular medical societies of the respective States. In looking over the list of Boston physicians, we see many names which we are mortified should appear between the same covers as our own.

Surgical Emergencies; together with the Emergencies attendant on Parturition and the Treatment of Poisoning. A Manual for the use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. Philadelphia: Lindsay & Blakiston. 1874. 8vo. Pp. 189.

"THIS manual," says the author, "pretends to be little more than a compilation from the best and most recent works on surgery." It *is* little more. That little more consists, first, of the little arts acquired in hospitals, what we may call *knack;* and, second, in the introduction and discussion of topics, which, however important in themselves, can hardly be called *emergencies*. Such, for example, is the chapter on Lister's antiseptic treatment, a method whose elaborate details have been one of the confessed causes of its non-employment in large hospitals. So, again, a long tabular view of the differential diagnosis of intra- and extra-capsular fractures of the femur, would hardly be consulted by the general practitioner when first called to treat a fall upon the hip, in an old person. We have known old people perish of diagnosis, and succumb to too prolonged manipulation in young and zealous hands. It is very questionable, too, whether Esmarch's bloodless method can be always safely resorted to in haste and in emergencies. The treatment of fractured clavicle by a steel cuirass and screws (vide p. 47), can hardly be called the treatment of emergency, even if a broken collar bone could be classed as a grave accident.

In speaking of treating fractures of the lower extremity by extension by weight, we are told to carry the long extension strips up to the knee, but nothing is said of the necessity of going above the joint to relieve the strain on the articulation. We are also told (p. 174), "the amount of weight must vary with the age of the patient, it being estimated that a pound should be allowed for every year up to twenty."

A delicate child of 12 years, with twelve pounds attached to his leg, below the knee, or even a vigorous youth of 20, with twenty pounds of similar extension, would require more counter-extension, we think, than the author directs, viz., "that the bed should be raised at the foot to prevent the patient being pulled down by the weight." Besides being far more power than is required, this amount of badly applied extension would be productive of great suffering.

The author's treatment of puerperal convulsions is active, but not that usually followed here. We give the paragraph at length:—

"Puerperal convulsions present all the ordinary features of epileptic convulsions. The treatment is: 1. Evacuate the contents of the bowels freely with scammony and jalap; 2. Shave the head, and apply ice, or evaporating otions; 3. Empty the bladder, or, at any rate, pass the catheter to be sure that it is empty; 4. Wait until the os is sufficiently dilated, and then apply the forceps and deliver the child as soon as possible. Chloroform should be

given, both to allay the violence of convulsions, and also to facilitate the delivery; 5. Give chloral hydrate in thirty-grain doses. If the patient is unable to swallow, administer it by the rectum. If the uterus is rigid, and the labor does not advance, the convulsions being constant, perform craniotomy."

The treatment for cut-throat is judicious. In operating for strangulated hernia, the author always tries first Petit's method of reducing without opening the sac. This procedure is open to grave doubts in the minds of many surgeons. His remarks on the dangers of over-use of the taxis in any rupture and of opening the sac in umbilical hernia are, however, excellent.

This book has many other good points, culled from practical surgeons, such as Hilton's method of opening deep abscesses, &c. It may be very useful as a ready remembrancer to the general practitioner, or even the professed surgeon. But the great fault of all condensed treatises is that some illustrative point is apt to be left out. What is made clear to the mind of the author by conciseness may not be so clear to the average reader. After all, the treatment of emergencies must depend on coolness and on common sense—two qualities which books cannot give. We have often thought that the best lesson taught by country practice is self-reliance. With the possession of that and an education, the general practitioner does not need this book, though it was for him it was ostensibly written.

In the chapter on poisons, we notice some space is devoted to restoring life after chloroform poisoning, but no mention is made of ether—a tacit admission of its safety. The book is handsomely printed and illustrated. The originals of the illustrations of reducing dislocation of the hip by manipulation, we think, would be found in Boston. D. W. C.

BOOKS AND PAMPHLETS RECEIVED.

History of the Portland School for Medical Instruction. An Address at the Dedication of the new School Rooms. By Israel Thorndike Dana, M.D. Portland. 1874. Pp. 33.

Archives of Dermatology. A Quarterly Journal of Skin and Venereal Diseases. Edited by L. Duncan Bulkley, A.M., M.D. October, 1871. Vol. I. No. 1.

Transactions of the Medical Society of the State of Pennsylvania. 1874. Pp. 454.

Address on Obstetrics; delivered before the Medical Society of the State of Pennsylvania. By Wm. B. Atkinson, M.D. 1874. Pp. 43.

Injuries of the Skull. By C. C. F. Gay, M.D., Surgeon to the Buffalo General Hospital. Pp. 11.

The Building of a Brain. By E. H. Clarke, M.D., Boston. James R. Osgood & Co. 1874. Pp. 153.

The Medical Register and Directory of the United States. By Samuel W. Butler, M.D. Philadelphia: Office of the Medical and Surgical Reporter. 1874. Pp. 835.

Subcutaneous Injection of Quinia.—Dr. F. D. Lente, who has recently published a paper upon the hypodermic method of administering quinine, suggests the following mode of preparation for the solution:—

℞. Quiniæ disulphatis, gr. cccc.;
Acidi sulphurici, m. xxxij.

Rub up the quinine and acid, which latter should be evenly distributed over the quinine, *very thoroughly*, until the two are *intimately* and *uniformly incorporated together*, if it requires an hour. Place in a porcelain dish, over a spirit lamp, add distilled water, fl℥viij., stir with a wooden spatula until the solution becomes clear. Filter through paper into a bottle, and add acidi carbolici liq., alcohol, aa m. xvi. This solution should remain clear, and free from crystallization, at ordinary temperatures, for any length of time.—*New York Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, October 15, 1874.

The introductory lecture to the regular winter session of the medical department of the University of the city of New York was delivered on Tuesday, September 29th, by Dr. John C. Draper, the subject of his discourse being the Relations of Chemistry to Medicine. The history of chemistry is given, in a short sketch, from the earliest times down to the present day, and the lecturer points out the fact that the various advances in chemistry have been the result of attempts, on the part of the ablest physicians, to render themselves more skilled in the art of healing the sick. The work which is now going on in other countries, in this and other branches of medical science, is alluded to in glowing terms, and the contrast which our own schools afford to the present centres of medical learning and science in Europe is presented so forcibly by Dr. Draper, in his concluding remarks, that we are glad of the opportunity to present them to our readers.

"Such being the present relation of chemistry to medicine, may we not well be ashamed of the scanty provision made in American medical colleges for the cultivation and advance of this science? The poverty of chemical and physiological research among American physicians has made us a by-word and a reproach among the nations of Europe. These nations, which in our youth and arrogance we regard as being effete or moribund, nevertheless have the energy to establish great and costly laboratories for chemical and physiological inquiry and investigation in connection with their schools of medicine. Not only are laboratories and apparatus supplied by government or by private endowment, but the professor is relieved from all concern regarding the necessities of life by a salary which, for the country, affords an ample sustenance. Here, on the contrary, he must not only earn his bread, but furnish his own laboratory and apparatus. Can we wonder that under these conditions there is so little result?

The want of proper facilities and endowment among American medical colleges must, to the thinking mind, be an evidence of the apathy of American physicians to their own true interests. While money is freely given to theological, academic, agricultural and technical institutions of every kind, not a single medical college has as yet received the funds which might enable it to perform its work in a proper manner. Society demands a high standard of its physicians, and punishes their neglect or malpractice with the severest penalties known to the law; yet what has it done to aid either in the advance or diffusion of medical knowledge? While every wild scheme or idiotic ism finds numerous supporters, who are willing to pledge their purses in their behalf, medical colleges, with few exceptions, have an uncertain tenure of life, and even the best are trammelled for the want

of means to do their work properly. It is not that there is a lack of liberality in the community, nor is it a failure to appreciate the properly educated physician. It must be that physicians themselves are at fault, and the community errs because it has not yet been instructed in a matter which is of the utmost importance to its own well-being and prosperity. Feeling the necessity of some action in this matter, the alumni of the medical department of the University of New York have established the nucleus of an endowment for their Alma Mater. That this may increase, and be applied in a manner to aid in the advance of medical science, is the earnest wish of all who have her welfare at heart; and, with the aid of her sons, the time cannot be far distant when this desirable result will be attained, and proper laboratories for chemical, physical and physiological research and instruction be opened freely to all who have been so educated as to avail themselves of their advantages."

We have already called attention to the liberal manner in which the citizens of Philadelphia have responded to a call from the Medical Department of the University of Pennsylvania for aid, and we are glad to see that the profession in New York is alive to the needs of the hour. We hope to find that the success which has attended these two movements will not only open the eyes of the profession to the needs of our medical schools, but also prove to them that they are not without influence sufficient to bring out liberal contributions for the support and improvement of a much needing and much neglected branch of education. It should be the aim of every good medical school not only to disseminate a knowledge of medicine among those who intend to become physicians, but also to contribute its share to the advancement of medical science.

In this country we have been accustomed, and, alas, content, to look upon our schools as machines from which a certain number of raw medical students are turned out annually, and not as centres of medical learning through which our knowledge of the healing art may be continually increased.

This is indeed an important and extensive field for those of our liberal minded citizens to work in who are willing to assist a much neglected department of education.

Of the modern follies, prize babies are specimens. They prove nothing, except the possibility of feeding to excess. You can make heavier pigs in the same length of time, and with much less trouble. At a late Agricultural Fair in Sheldon, Vermont, we are informed that three prizes were offered. The first was fifteen dollars for the heaviest, *apparently* healthy baby. Two other prizes were respectively five and three dollars each. The children to be considered as candidates, we are told, were to be not over a year old, and ten months was to be considered as a better age. The law cannot step

in and put an end to such folly, but common sense ought to. To begin with, the weight of a young child is no evidence either of its future size, in case it lives, or of its ability to withstand disease. If it were, the better way would be to give the prize for the heaviest new-born infant. We know that the smallest children at birth often become the largest in after years. In the next place, the children who are the heaviest at one year of age, are often those who have been fed upon improper food; food which, by the second summer, when dentition is somewhat advanced, the stomach refuses to digest, and either rejects by vomiting, or, worse, by diarrhœa. In the former case, they are lucky, as they are sometimes spared frequent trials of the same. What becomes of this heavy, over-fed, sick baby? If it is fortunate in having common sense put in its mother's way, it may get well. If the same course be continued, why, it may be fortunate enough to die in its first attack of convulsions; or it may be a little less fortunate, and live to brave several attacks; or, again, a short hydrocephalus; or it may, unfortunately, linger through suffering childhood, a sickly youth, and become a burden to itself, and a dyspeptic nuisance to all its friends.

If the officers of County Fairs would offer prizes for the most healthful population to be found in any of their towns, at the age of twenty-one, they might do some service. If they would offer prizes to the towns where there is the least typhoid fever, and the least dysentery, it might be of some use. If they would give any surplus fund as prizes for properly-constructed drains, which would not deposit their filth under their windows; if they would reward their friends for introducing properly-constructed earth-closets, and using them properly; if they would spend their money in pointing out the advantage to health of removing their stables from their houses, or in showing adults how much they might gain in health and strength by feeding on meat and vegetables, instead of pies and doughnuts, the result would be a more healthful country population than we now find.

With all the follies of city life, observation shows us that our city girls are in better condition, as a rule, than country girls in New Hampshire and Vermont. They are more ruddy, they can endure more, are less anæmic, and quite as long-lived.

To return to prize babies: What does size prove, either in the matter of health or life? Absolutely nothing. We can recall, in our own limited experience, enough cases to satisfy us that this statement is correct. A friend says that the offering a prize for the biggest baby is only a joke. Let it be only a joke. But the means taken to get up the play are the means of producing disease and death. There are better ways of affording amusement than trifling with future health and happiness.

WHISKEY AS AN ANTISEPTIC DRESSING.—In a paper on this subject, in the *Philadelphia Medical Times*, Dr. J. L. Suesserott relates the following interesting cases:—

Charles E., aged 60 years, a carpenter, about two years ago had his right forearm terribly lacerated by coming in contact with the revolving head of a planing-machine. The integuments and muscles of the back part of the forearm were torn in shreds; the limb was placed on a splint, the torn tissues were restored as nearly as possible to their places, kept *in situ* by isinglass-plaster, and supported by compresses saturated with strong whiskey. In two weeks from the time of the accident, no suppuration having taken place, the splint was removed and my patient was at his work. About a year after this occurrence, the same patient had the back of his left hand thrown into the same machine. The result was that the articular ends of the second and third phalanges of three of his fingers were entirely knocked out, leaving the fingers hanging by the flexor tendons. Deeming it impossible to save more than a stump of the hand, I was about to remove the dangling digits, against which procedure the patient strongly protested. Sympathizing with the now twice unfortunate man, and desiring to let the realization of the full extent of his maimed condition break upon him gradually, I procured three small splints, upon which I carefully laid the, as I was fully persuaded, lifeless fingers, secured them with isinglass-plaster, and placed the whole hand upon a heavy straw-board splint, with the full assurance, in my own mind, that even with the deodorizing effect of whiskey, by the next day my very hopeful patient would be satisfied of the propriety of their removal. The part, or, I might more truly say, the whole hand, was kept saturated with my favorite fluid for external use, and, much to my surprise and gratification, on the following day I found the circulation re-established. The fingers were kept on small splints to prevent too much shortening. Granulations repaired the lost soft tissues almost entirely, and, the metacarpo-phalangeal articulation not having been injured, I had the extreme pleasure, at the end of four weeks, to see my patient, who, by the way, is a man of strong nerve, hard at work, with a very useful hand.

About the time of the first accident to this patient, Charlie W., a lad of about 12 years of age, ran into a mowing machine. His left foot was cut off just at the top of his shoe, and the right one, it having been elevated in the act of running, was taken off through the tarsal bones. Assisted by Dr. E. N. Sensery, of Chambersburg, Pa., I shortened the bones of the left leg so as to procure sufficient covering, but we both concluded that by the removal of the cuboid bone of the right one we might hope to save the heel, and make the limb more useful; leaving it as in Chopart's or Symes's amputation. Even after the use of strong ligatures and contracting bands, we were not able to bring the tissues together, but were compelled to leave a surface of two and a half or three inches entirely exposed. Into this we packed patent lint, well saturated with whiskey, satisfied that, with some suppuration, we might hope for a full repair of the parts. Suffice it to say that in an incredibly short space of time the parts were healed, without any want of covering to the stumps, and with the loss of not more than *one fluidounce of pus from both limbs*. Of this latter fact we are confident, as we did all the dressing ourselves.

REVILLOUT ON THE DIFFERENTIAL DIAGNOSIS OF DISEASES OF THE STOMACH.—The *London Medical Record* of Sept. 23, 1874, contains an account of an article in the *Gazette des Hôpitaux* on gastric diseases. Dr. Revillout criticises the statements of Trousseau and of Cruveilhier regarding these maladies, and shows that these authors are often at variance with each other and that neither is perfectly accurate. Dr. R. says that the symptomatic physiognomy, or totality of symptoms, in cancer and in simple ulcer of the stomach, is in general extremely different. When the cancer is limited to the stomach itself, we do not generally meet with dorsal pain, even when vomiting has been going on for some time, and the patients suffer acutely. This

is true, at least for the major part of the duration of the disease. Two typical cases of cancer, and three of ulcer of the stomach, are reported. In both classes of cases, there was vomiting, but one kind had no pain in the back; the patients complain of the stomach only, and there their sufferings are very acute, but there is no tendency towards the pain in the back; these are the cases of cancer. The others have dorsal pain quite as severe as the epigastric, and on the same plane with this—or, to speak more accurately, the two pains are really one and the same—and the patients compare the pain to dragging, tearing or bruising; these suffer from ulcer of the stomach. Unfortunately, all cases are not so simple or so easy to diagnosticate. Sometimes we meet with complications well calculated to lead us into error. But in such cases it is important not to lose sight of essential facts and first principles. When symptoms which appear contradictory are associated, they should at least cause us to hesitate and suspend our diagnosis, waiting for the judgment of time. We have a striking instance in the following case. A woman, aged sixty-three years, entered the wards at the Charité, January 12, 1874. She had for some time vomited black stuff, and shortly afterwards a hard, uneven tumor, about the size of a hen's egg, and not very sensitive to pressure, was discovered a little above the navel. Her stomach was dilated, and her skin had an icterode cachectic coloration, like that of cancer. She stated that, about four months previously, she had felt violent pains in the stomach. She soon began to vomit, first food, and then the vomit changed its character to a sooty or coffee-ground appearance. The gastric pain, starting from the epigastrium, and extending to the spine at the same level, had grown worse. M. Revillout had often asked the patient about this pain, and her answers were always consistent. The hæmetamesis continued; food was rejected soon after being taken, milk only being tolerated. Her emaciation increased rapidly; the sooty vomitings were more frequent; she was obstinately constipated; her appetite diminished, her weakness increased. She died July 21st. At the necropsy, the pyloric end of the stomach was found indurated, and formed the tumor. The contiguous parts, epiploon and transverse colon were firmly adherent, and were much indurated. On opening the stomach, an ulcer was found at the pylorus, about one inch and five-eighths in length, following the course of the pyloric canal. This ulceration was truly cup-shaped. The mucous membrane was lost at its edges, and its floor was formed by the transverse fibres of the stomach, which were themselves wanting at its deepest part, where the longitudinal muscular fibres became visible. This ulcer was solitary. Around it, the hypertrophied walls of the stomach formed a tumor, which had no characteristics of cancer, either to naked eye or microscopic. It cut firmly, was hard, smooth and shining, but no juice could be squeezed from it. In this case, the diagnosis of cancer of the stomach seemed reasonable. There was the tumor and the icterode cachexia, which are deemed so characteristic. It is true that hæmorrhagic (anæmic) cachexia may simulate the cancerous. But how could we explain the tumor? Cruveilhier mentions a case, noticed *post-mortem*, in which a simple ulcer of the pylorus had produced around it a thickening sufficiently marked to simulate a tumor on percussion. In the case we have been considering, the patient was not cancerous; her dorsal pain was, therefore, not exceptional, but confirmed the rule given above, for this, and this only, allowed the truth to be guessed at—that we had to deal with a simple ulcer, and not with cancer of the stomach.

Correspondence.

PROVIDENCE, R. I., October 6, 1874.

MESSRS. EDITORS,—As it is due to Dr. Barnes, permit me to correct the mistake which makes my letter, published page 264, read "not ever succeeding with his plan of restoring the index," instead of "not *even* succeeding," &c. I originally hit upon the same plan as he proposes, and succeeded by it several times and several times failed, when it occurred to me that it would

be safer and easier to shake the mercury into the tube in the way I described.

Let me add that I feel sure that *any thermometer can be made self-registering* in this manner if due care is used and correction made for the space between the index and the remainder of the column of mercury in the tube. As self-registering instruments are at a premium, this may be of interest to others.

Yours truly, CHARLES H. LEONARD, M.D.

Obituary.

JEFFRIES WYMAN.

[Died Sept. 4th.]

THE wisest man could ask no more of Fate
Than to be simple, modest, manly, true,
Safe from the Many, honored by the Few;
Nothing to court in World, or Church, or State,
But inwardly, in secret, to be great;
To feel mysterious Nature ever new,
To touch, if not to grasp, her endless clew,
And learn by each discovery how to wait;
To widen knowledge and escape the praise;
Wisely to teach, because more wise to learn;
To toil for Science, not to draw men's gaze,
But for her lore of self-denial stern;
That such a man could spring from our decays,
Fans the soul's nobler faith until it burn.

From the Nation, Oct. 8th. J. R. L.

Medical Miscellany.

HYDROPHOBIA is prevailing in Madrid, nine or ten deaths being known to have occurred at latest date.

WE are happy to learn that the *Chicago Medical Journal* will be enlarged after the present year.

RESOLUTIONS OF RESPECT to the memory of the late Dr. Jeffries Wyman were passed at the meeting of the Councillors of the Massachusetts Medical Society, held last Wednesday.

CATARRH SNUFF.—Dr. E. C. Mann, of New York, recommends the use of a snuff composed of equal parts of finely pulverized camphor and white powdered sugar as an adjuvant to the various injections and sprays employed in the treatment of nasal catarrh.—*New York Medical Journal.*

TRACHEOTOMY IN AN INFANT.—A case is reported in the *Journal de Thérapeutique* (1874, No. 15) in which tracheotomy was performed, on account of croup, upon a child only fourteen months old, the operation resulting in immediate relief and speedy recovery.

SMALLPOX INOCULATION IN IRELAND.—The practice of smallpox inoculation, though obsolete in other countries, is still kept up in Ireland, notwithstanding the heavy penalties inflicted upon the inoculators when detected. Numerous cases of variola have recently come to the attention of the medical officers in the County Mayo, and as the parents of those affected decline to reveal the names of the inoculators, it has been resolved to prosecute the parents themselves.

BROMIDE OF AMMONIUM IN ACUTE ARTICULAR RHEUMATISM.—After a trial of more than a year, Dr. J. M. DaCosta is convinced of the value of the bromide of ammonium in the treatment of acute rheumatism. He thinks the drug relieves pain, acts generally upon the skin, keeps up the action of the kidneys and lessens the tendency to internal inflammation. He gives it in scruple doses every three hours.—*Medical Record*, Sept. 15, 1874.

LANCING THE GUMS.—Dr. James Finlayson concludes a paper in the *British Medical Journal* (Sept. 19, 1874) on the alleged dangers of dentition, and the practice of lancing the gums, with the statement that the chief danger of the wholesale use of the gum-lancet lies in its embodying in practice a theoretical view of the ailment, and so tending to close the mind against further inquiry into the diagnosis, etiology and treatment of infantile disorders.

ECHINOCOCCUS IN THE MAMMA.—Dr. Lamenstein (Inaugural Dissertation, Göttingen, 1874) reports a case of the above rare affection occurring in a woman aged 48 years. The tumor, after a growth of many years, attained an enormous size, and finally opened spontaneously. The woman had given birth to nine children, and lactation had never been interfered with, only the affected breast secreted a less amount of milk. The wound healed, and the woman made a good recovery, though at a later date a similar, though smaller, tumor appeared upon the lower edge of the pectoralis major.

EXCISION OF A PORTION OF THE SPLEEN—RECOVERY.—Dr. H. C. Markham, of Winthrop, Iowa, reports (*Medical Record*, Sept. 15, 1874), the removal of almost the entire spleen of an Indian, who had been wounded in an altercation with a white desperado. When called to the wounded man, he found the spleen, to the extent of three-fourths of its volume, projecting from a wound in the abdomen. The organ was already partially sphacelated from constriction at the edges of the wound and the extreme heat of the season, about thirty-six hours having elapsed since the infliction of the wound. The projecting portion of the spleen was removed by a common bistoury to nearly a level with the abdominal walls. The hæmorrhage, which was excessive, was with difficulty controlled. After applying cold-water dressings and giving stimulants, the patient was left to die, as Dr. Markham supposed. About a year afterward, the Indian presented himself at the doctor's office, and, drawing aside his blanket, exhibited the cicatrix of the wound. His only statement was "Indian heap no run."

MARRIED,—In this city, Oct. 5th, in the South Congregational Church, by Rev. E. E. Hale, Clarence J. Blake, M.D., and Frances, daughter of George Hughes.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and towns for the week ending October* 3, 1874.

Boston, 150; Worcester, 10; Lowell, 24; Milford, 4; Cambridge, 18; Salem, 6; Lawrence, 16; Springfield, 13; Lynn, 18; Fitchburg, 4; Newburyport, 2; Somerville, 10; Fall River, 25; Haverhill, 3; Holyoke, 8. Total, 311.

Prevalent Diseases.—Cholera infantum, 59; consumption, 47; typhoid fever, 17; dysentery and diarrhœa, 17; whooping cough, 8; pneumonia, 8.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 10, 160. Males, 71; females, 89. Accident, 4; apoplexy, 3; disease of the bladder, 1; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 2; disease of the brain, 5; cyanosis, 1; cholera infantum, 19; cholera morbus, 1; consumption, 27; convulsions, 3; croup, 1; debility, 3; diarrhœa, 4; dropsy of the brain, 2; dysentery, 3; diphtheria, 2; diabetes, 1; erysipelas, 1; scarlet fever, 1; congestive fever, 1; typhoid fever, 10; gastritis, 1; hernia, 2; disease of the heart, 10; hæmorrhage, 1; intemperance, 3; jaundice, 1; disease of the kidneys, 2; congestion of the lungs, 2; inflammation of the lungs, 1; marasmus, 14; old age, 1; paralysis, 2; premature birth, 4; peritonitis, 1; puerperal disease, 2; purpura hæmorrhagica, 2; scalded, 1; tetanus, 1; teething, 2; tabes mesenterica, 3; uterine disease, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 76; between 5 and 20 years, 13; between 20 and 40 years, 33; between 40 and 60 years, 20; over 60 years, 18. Born in the United States, 115; Ireland, 32; other places, 13.

THE

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Original Communications.

A CASE OF EMPYEMA TREATED BY FREE INCISION. DEATH. AUTOPSY.

By J. T. BOUTELLE, M.D. Harv., of Boston.

APRIL 5, 1874.—C. P., aged 19, pattern maker. Has always been healthy until a year ago, when he caught a severe cold, which lasted a long time, and was accompanied with pain in right chest. No hereditary disease in family. After recovering from this cold, went to work again, and was in pretty good health until about three months ago, when he took cold after exposure, and had severe pain in right side, sharp and darting at first, more dull afterward. At this time, began to be feverish, and to grow weak, having pain in right chest nearly all the time; his appetite and strength failed rapidly. He continued to grow worse, and took to his bed about six weeks ago, and has remained there ever since. Emaciation has been rapid, and cheeks marked with hectic flush. During the past two weeks, he has been sweating profusely, night and day. He has had beef-tea, chicken broth, &c., and whiskey to the amount of a pint daily.

The case has been considered acute phthisis, and treated as such. I saw him to-day, for the first time. He lies in bed upon his right side, breathing with difficulty. He is greatly emaciated, the hip bones and shoulders being covered only by skin; there is a bed-sore upon right hip, and another upon right shoulder. He is too weak to move without help. Coughs a great deal, raising large quantities of frothy pus and mucus. Physical signs:—Left lung hyper-resonant, with exaggerated respiratory sounds. Left lung, as far as I could get at it, was perfectly flat over the whole front and side, with entire absence of respiratory sounds. Any attempt to turn him upon his back, or upon the left side, brought on such excessive dyspnœa and coughing that I contented myself with a slight examination. The fact of his lying continually upon the right side made me suspect that there might be fluid there, but I did not verify my suspicion, and rather inclined to the belief that the air cells of the right side were completely blocked up with tubercle. Ordered sponging frequently with rum and alum, and

℞. Calcis phosphat. gr. xv. every night.
℞. Acidi hydrocyan. gtt. j.
Ext. pruni virg. fluidi ℥j. every four hours.

Diet to be as nourishing as possible; chiefly, strong beef-tea in small quantities frequently. Milk punch, containing two fluidounces of whiskey, every four hours; also whiskey and water occasionally.

April 12th.—Sweating ceased entirely three days ago. For the past two days, has been delirious, tossing about and talking incessant-

ly. To-day, is more quiet, though still excited and talkative; face flushed, skin hot, pulse 120, of moderate strength. Physical signs the same as on last visit. Above the right nipple, is a rounded swelling, not tender, and the tissues between nipple and axilla are swollen. Continue treatment.

April 15th.—Found patient moved from the bed to the sofa, and had an opportunity to make a more extended examination of thorax. He had just coughed up about a pint of fœtid, brown pus mixed with mucus. As he lay on the right side, I found tympanitic resonance over a small portion nearest the sternum, the line of flatness commencing about the middle of right clavicle, and passing directly downward. Very feeble respiration could be detected in the resonant portion. There was a blowing sound beneath the swelling above mentioned, and upon pressing it with the fingers, an emphysematous crackling was heard. The left lung was the same as on the first examination. From these signs, I concluded that there was a large collection of fœtid pus in the right pleural cavity, and an opening in the lung itself near the apex.

Pulse 120, and of moderate strength. Has diarrhœa. As he continued to be very restless, and at times delirious, constantly talking and tossing about, I diminished the allowance of whiskey to four ounces per diem in milk punch.

April 18th.—Consultation with Dr. M. E. Webb. Signs same as yesterday. The bulging between ribs was very marked, and fluctuation could be detected. The excitement is rapidly diminishing, and he takes a fair amount of beef-tea, milk, &c. Slight diarrhœa continues. Pulse 116. Temp. 101·8°. Resp. 32.

April 19th.—With Dr. Webb's assistance, tapped with aspirator between seventh and eighth ribs, about two inches from the lower angle of scapula toward the middle of the ribs, and removed three pints of brown, fœtid, thick pus; the pus was very frothy. He had coughed up a pint this A.M., before the operation. I had intended to make a permanent opening at this visit, but his excessively feeble condition and nervousness decided me to try the aspirator first, in hopes that he would gain strength and courage to undergo a severer operation. After the pus was removed, he lay upon his left side for the first time in five weeks. In about half an hour, I applied the stethoscope, and found feeble respiration over the greater part of the lung.

April 20th.—Slept pretty well last night. About 3, A.M., had a chill, not very severe, lasting a half hour. This has not occurred again, and he feels quite comfortable. Pulse 106. Temperature 100·2°. Respiration 25. Cough not troublesome. Has taken some beefsteak, and three or four cups of milk this forenoon. Bowels still rather loose.

Resonance pretty good over most of lung; flatness over a portion of the most dependent part, where there is no respiration, and a slight bulging of intercostal spaces. Emphysematous crackling upon pressing tissues between nipple and scapula. Continue nourishing treatment.

April 22d.—Passed a comfortable day yesterday; ate beef-steak and stewed pigeon. Diarrhœa ceased. This A.M., had a fit of coughing, and raised a considerable amount of brownish pus. Since then, has felt weak and nervous. Has a good appetite, and has had steak and beef-tea to-day. Lies upon back without discomfort, and has maintained this position all the forenoon. Pulse 116. Temperature 99·6°.

April 23d.—Passed a pretty comfortable night. Has been coughing a good deal this A.M. Is prepared to undergo the operation for permanent drainage. *Operation*, Dr. M. E. Webb assisting. A knife was passed between the eighth and ninth ribs, about an inch to the right of the lower angle of scapula, into the pleural cavity, and the incision slightly enlarged on withdrawing the blade. No pus escaped. An India-rubber drainage-tube was then pushed in about five inches, and secured by straps of adhesive plaster. The pump of the aspirator was attached to the tube, but no pus could be drawn through. After injecting a little warm water, without helping matters, the tube was drawn out, clots removed from its calibre and re-introduced, but still no pus could be drawn through it. Tube was removed, and a canula introduced, but with no better result. As the patient was growing very weak, crying out with pain, and threatening to faint, the canula was removed, and a poultice applied over incision. A little whiskey and water was given. He coughed incessantly, without raising anything. Pulse 116. Temperature 100·6°.

℞. Morph. sulph. gr. ⅛ statim, to be repeated in half an hour, if coughing continues. Also, if he has a chill to-night, to have morph. sulph. gr. ¼. Continue supporting treatment.

April 24th.—Had a slight chill about 2, A.M., lasting half an hour. Has taken a large amount of beef-tea and mutton broth since yesterday. Pulse 105, steady. Temperature 99·8°. No pain. Scarcely any pus has exuded into the poultice. The area of resonance does not seem to diminish. There is dulness, and absence of respiratory murmur over an area bounded by lines drawn directly downward from the anterior and posterior edges of axilla, as he lies "canted" considerably toward right side. I can find no evidence of solidification other than that caused by the fluid.

April 25th and 26th.—Condition remains about the same. Pulse 110. Temperature 99·6°. Has had no more chills. Has had two fits of coughing, each lasting about an hour, and at each attack he raised nearly a pint of frothy, brown pus. He takes plenty of nourishment, beef-tea, steak, oysters, &c., and egg-nog, containing about an ounce of whiskey, three times a day.

April 27th.—This A.M., about 11.30, found him coughing incessantly, without expectoration. Was told that this had been going on for two or three hours. He was greatly exhausted and distressed. Had not slept much during the night. Gave morph. sulph. gr. ¼, which relieved the cough in a half-hour. I decided to make an incision between the ribs large enough to allow free exit to pus, and also to administer ether, which I had been afraid to do before, on account of his feeble condition, and the absence of respiration on the right side.

April 28th.—*Operation*, Drs. Webb and Everett assisting. Ether was carefully given by Dr. Webb, and patient was wholly under its influence in twenty minutes, breathing easily. I then thrust a trocar between the seventh and eighth ribs, at the point where I had found pus on the 19th inst. As pus began to flow through the canula, I removed it, and made an incision three inches long through the skin, the point of puncture being at the middle of the incision. A careful dissection was carried down to the pleura, and the pleural cavity opened by an incision of two and one-half inches. About three pints of fœtid pus escaped. On examination with the finger, a long, smooth line of

adhesion was found a few inches below the incision, passing downward and backward, evidently the bottom of the sac of the abscess. Upward, the finger could be moved freely about without finding any adhesions. The patient recovered from the ether very well. Before operation, pulse 116; temperature 99·6°. After operation, pulse 120; temperature 99·6°.

As the pulse was quite feeble, an ounce of whiskey was given in water, and the pulse soon increased in strength. There was but very little nausea, and but slight coughing. Poultice to be applied to wound. Whiskey, ℥i. every hour until next visit.

April 29th.—Had a restless night. Complains of pain in wound. The bed-sore upon the right hip seems to cause him much pain, although it is now quite small. He has taken a pint of strong beef-tea since last record. The discharge was very free during the night, and is now gradually diminishing. Wound looks healthy, but the tissues below it are swollen and tender. Has had no chill. Coughed some last night, but this ceased on taking morph. sulph. ¼ gr. Coughing causes excessive pain in wound. Continue treatment as regards diet. For stimulant, to have egg-nog, containing half an ounce of whiskey, three times a day. Pulse 106. Temperature 100·8°.

April 30th.—Had a restless night, coughing a good deal, raising pus. Appetite good; eats beef-steak, and digests well. The discharge from wound is abundant, and not fœtid. Pulse 116, not very steady. Temperature 100·4°.

May 1st.—Discharge abundant. Pulse 100, steady. Temp. 100·3°.

May 2d.—Condition about the same. Appetite ravenous. Pulse 105. Temperature 100·4°. Omit morphia entirely. ℞. Chloral hydrat., gr. xv. nocte.

May 7th. Gets some sleep every night after taking the chloral. Appetite continues good, and he takes abundant nourishment. Cough troubles him very much, and he raises brown pus, mixed with sticky mucus. For the past two days, I have been trying to introduce a drainage-tube, for the purpose of syringing out the cavity, but cannot find the opening, which seems to have granulated over. I suspect there is a collection of pus in the thorax, which does not escape, and which is keeping up the temperature and causing cough. The temperature, since last record, taken daily, has been 100·2°, 100·2°, 100·3°, 100·4°, 100·6°. The pulse has ranged between 105 and 120.

May 8th.—Coughs badly, but seems to be gaining strength. Can raise arms above his head, and lift a cup to his lips. Bed-sore on shoulder has healed, and that on hip very small. I cannot find the opening into the thorax with the probe, although the wound discharges freely into the poultice, the pus being light-colored, and without much odor. Pulse 120. Temperature 100·6°.

May 9th.—Patient etherized by Dr. Webb. On introducing the finger, I found the opening through the pleura entirely closed by granulations. The union was easily broken up with the finger, and an opening made the length of the original incision. Not much bleeding. About a pint and a half of excessively fœtid pus escaped. A rubber tube was then inserted, and the cavity thoroughly syringed out with warm water, containing a trace of carbolic acid. The tube was then fastened in by adhesive strips. Patient rallied well from the ether. Pulse, before ether was given, 122. Temperature 100.6°.

8, P.M.—There has been an abundant discharge from the wound. Patient has been restless all day, thirsty and hot. No chill. Coughs a good deal. Pulse 124. Temperature 103·2°.

℞. Spts. æther nitrosi, ℥ss. in water every four hours. May drink cold water freely, and suck cracked ice. To have a glass of ale during the night, and a pint of beef-tea.

May. 10th.—Had a pretty fair night after taking chloral, gr. xv. Pus discharging freely through tube and incision. No chills. Had beef-steak and egg-nog for breakfast. Pulse 120. Temp. 101·2°.

May 11th.—Improving. Appetite very good. Washing out the thorax with warm water relieved his cough somewhat. Pulse 116. Temperature 100·6°. ℞. Quiniæ sulph., ferri sulph., āā gr. ij.; syr. aurantii, gtt. xx.; aquæ ℥i., in water three times a day.

May 16th.—Seems to gain strength, but pulse continues rapid, ranging between 118 and 120. Temperature, since last record, has been 100·2°, 100·6°, 100·6°. To-day, at 3, P.M., I find him weak from excessive coughing. Expectoration consists of frothy mucus, without pus. Pulse 124. Temperature 103.

May 17th.—Consultation with Dr. H. I. Bowditch. Dr. Bowditch thought there was a chance of saving the patient, provided the appetite continued good. He advised having the patient sit up in bed occasionally, and the internal administration of fusel oil. The thorax was washed out as usual, the tube removed, and exploration made with a catheter, which passed in about eight inches without meeting any obstruction. The tube was then replaced. Patient coughs a great deal, and this is most relieved by morphiæ sulph., gr. $\frac{1}{6}$ twice a day. The thorax is washed out with warm water every morning. Pulse 124. Temperature 102·4°.

May 18th.—Pulse 108. Temperature 101·3°. Propped him up into a sitting posture while washing out thorax, and he remained so for about fifteen minutes without feeling faint. Omit the iron and quinine. ℞. Fusel oil, gtt. v.; syr. simplicis, ℥i. M. three times daily.

May 19th.—Pulse 118. Temperature 102·2°. Sat up in bed, with a chair for support, for half an hour, during which time thorax was syringed out.

May 20th.—Pulse 120. Temperature 103·1. Coughs badly, and there are streaks of blood in the sputa. Appetite not so good as usual. Omit fusel oil, and take iron and quinine in solution āā gr. ij. thrice daily as before. Thorax to be syringed out twice a day.

May 21st.—Pulse 124. Temperature 104°. Had been coughing for two hours before visit.

May 25th.—Not doing well. Pulse, since last record, has been 120 to 124. Temperature not taken, on account of thermometer breaking. Complains of pain, on coughing, at middle of seventh rib on both sides. Physical signs remain about the same as last record. The family tell me that there has been a sudden increase in the amount of pus discharged. This A.M., they found the rubber bag, which was attached to the tube to catch the pus, and which held about three ounces, full and running over, and about a quart of pus in the bed. Patient is losing appetite gradually, and there is slight œdema of feet and ankles. This A.M., a slight diarrhœa commenced. Ordered to omit all attempts at sitting up, and thorax to be syringed three times a day.

May 26th.—Pulse 128. Temperature 101·3°. Discharge excessive,

amounting to about a pint in twenty-four hours, and very fœtid. Appetite still failing. Œdema of feet and legs increasing. No diarrhœa. Abdomen swollen and tympanitic. No pain in abdomen. Not much cough. Has a pyæmic look.

May 27th.—Pulse 134. Temperature 100·2°. Complained of great pain at a point near and a little below incision, on being syringed out this A.M. The area of dulness has increased below line of incision, and moist râles are heard all over lower half of front (right side). Also a few moist râles on left side, but no dulness on percussion. He took about half a pint of beef-tea last night, and a bowl of bread and milk this A.M.

May 29th.—As the drainage-tube seemed to cause much pain, it was removed to-day, and the cavity syringed by passing the nozzle of Davidson's syringe through the wound. He has no chills, but pulse keeps high and unsteady, and his appetite fails more and more every day.

He continued to grow worse every day, the œdema of feet and legs increased, and appetite failed completely. On June 7th, he complained much of pain in left side, and on that day diarrhœa set in. The respiration became more and more embarrassed; on June 9th, he lay in a semi-stupid state, from which he could be aroused without difficulty; he died on the morning of June 10th.

Autopsy six hours after death. Body very much emaciated. Rigor mortis not very marked. On dissecting back the skin over thorax on the right side, the intercostal muscles between the five upper ribs were found atrophied to a membranous condition, and perforated with many apertures, allowing air to escape beneath the pectoral muscles, which accounted for the emphysematous swelling before mentioned. The heart was somewhat flabby, otherwise normal. In the left pleural cavity was about a pint and a half of clear serum. The left lung was adherent posteriorly, not very firmly, from the apex, about a hand's breadth downward. It contained, at its apex, a cavity, containing pus, about the size of a filbert, and having a well-marked sac wall. In this vicinity, the lung was congested. No traces of tubercle.

On the right side, the removal of the sternum had opened the cavity anteriorly. It was, in diameter, about three fingers' breadths, enlarging a little as it passed backward behind the lung, and extended from the upper border of the fifth to the lower border of the eighth rib. The lung was compressed into a half-moon shape, the greater part being above the cavity, and firmly adherent to the side of the thorax; the middle portion was adherent to the pericardium, and a small portion was below the cavity, adherent to the diaphragm and wall of thorax. The diaphragm was pushed very high up, its apex being on a level with the fifth rib anteriorly. The adhesions of this lung were very firm, and the lung had to be dissected out. When removed, it was slightly larger than the heart, and pretty firmly hepatized. No trace of tubercle found.

The liver was considerably enlarged. On attempting to remove it, adhesions were found between the right lobe and the diaphragm; these were easily broken with the finger, and the liver removed. In the posterior part of the right lobe were two abscesses, about the size of an English walnut, and, an inch deeper in the substance of the lobe, two other similar ones. A fifth, rather larger than these, existed in

the anterior portion of the lobe. The abscesses had a ragged appearance, were lined by pretty firm walls, and contained dirty, greenish pus. Gall bladder was entirely empty. Kidneys normal. Rest of organs not examined.

A probe was passed through the small opening, which remained after the second operation, and was seen to come upon the lowest part of the diaphragm, but no opening could be found between the pleural cavity and that of the abdomen.

Among the details of this case, I should like to call attention to the following points:—

The condition of the patient; the long duration of the disease, the excessive sweating, painful bed-sores, and general prostration rendering it a most unfavorable case for operation.

The immediate relief and gain in strength which followed the evacuation of the pus, the general condition steadily improving up to about two weeks before his death.

The rapidity with which the large incision granulated together, which shows the necessity of guarding against this at the time of operation, by stuffing with lint, or inserting tubes.

The absence of tubercular deposit in the lungs after so much inflammatory disturbance.

The point selected for operation. At the second operation, when no pus could be evacuated, the tube was thrust in four or five inches, entering between the eighth and ninth ribs, about an inch external to the lower angle of the scapula. It probably passed below the small portion of lung adherent below the abscess and ascended upon the diaphragm. The autopsy showed that this point was nearly two inches too low to enter the cavity. The physical signs were the same as those higher up, and there was, apparently, bulging of the intercostal spaces. This fact shows that it is not *always* safe to enter the thorax very low down. The incision made at the next operation was visible for about two-thirds of its extent, as the patient lay upon his back, and could be easily reached without disturbing him.

The abscesses in the liver did not appear to be very recent, being lined by well-marked walls, but as they were not connected with each other, and as no fistulous track appeared, leading from them to the pleural cavity, I suppose that they were caused by septic poisoning. The general symptoms and appearance of the patient during the two weeks previous to his death were similar to those of pyæmia, although there were no successive chills.

FOUR AT A BIRTH.—A negro woman in Berlin, Ind., aged 40, recently gave birth to four well-developed children, three girls and one boy, one of the girls being still-born. There were two placentæ; three of the children were attached to one, while the dead one was attached alone to the other. No physician was present during her labor.—*Philadelphia Medical Times.*

MONSTROSITY.—At a recent meeting of the *Académie de Médecine*, M. Blot reported a case of monstrosity by the absence of the head, the chest, the greater part of the abdominal organs and the muscular system. The bones of the pelvis and the lower limbs, covered with skin, appeared to constitute the entire fœtus.

Clinical Lecture.

OVARIAN CYST.

By Calvin Ellis, M.D.,

Professor of Clinical Medicine in Harvard Medical School; Visiting Physician to the Massachusetts General Hospital.

The patient is a married woman, 53 years old, who has always enjoyed good health and has borne four children, the youngest of whom is 22 years of age.

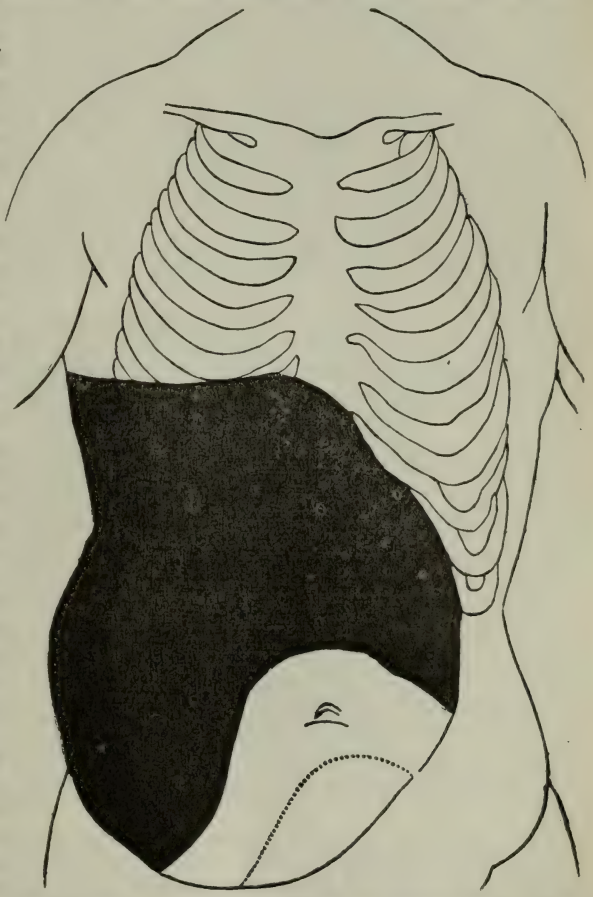
Twenty years ago, she first noticed a small *swelling in the right side of the abdomen*. This increased but little after the first year, but the *abdomen began to swell generally*, and has continued to enlarge up to the present time, particularly within the last three months. She complains of no pain or other abdominal symptoms, except distention. No *thoracic* symptoms have attracted attention. The *appetite* has been poor. The *bowels* have generally been constipated. *Micturition* has been normal, as well as the appearance of the *urine*. The *catamenia* were regular until she came to this country, twenty years ago, when they ceased, and have not since returned. During the past year, the *weight* has diminished and the *strength* has failed. She *sleeps* sufficiently well. The *tongue* is natural, the *pulse* 108.

We have here another history of *abdominal enlargement*, without such accompanying symptoms as enable us to form any opinion whatever about its exact seat or character. The fact that the *catamenia ceased at the age of* 32 has no special significance, in the absence of any constitutional disturbance. The menopause has been noticed at a much earlier age than this. Although there may have been some special cause in our patient we do not need such, and nothing indicates it in the history which she has given us. We can only say that the disease is *chronic*, and use our own senses to carry us farther.

We must, therefore, *examine the abdomen* at once to obtain material for a differential diagnosis. On *inspection* [see diagram, next page], we are at once struck with the marked *enlargement* which involves the whole abdomen, though the right lumbar region is particularly prominent, and there are *other irregularities of surface* in the lower half in the neighborhood of the umbilicus. The large prominence is perhaps six inches in diameter, while the others, in size and form, suggest a loop of intestine. But the eye can only suggest. We may say, however, that obesity cannot be the cause of the change of form; we may also say that these local prominences are not connected with any affection of the parietes themselves, that they are probably to be traced directly to the disease which has caused the general enlargement. The tension of the abdominal walls is such as to lead to the belief that the change of form is owing to *some affection within the peritoneal cavity*. I will also call your attention to the *undue fulness of the superficial abdominal veins*. This is frequently seen when the circulation through the deep-seated veins is interfered with, and the pressure of some large body in the peritoneal cavity might prove a sufficient cause.

Although the surface appears to be quite uniform, we notice that the *resistance to pressure varies in different parts*, and we must resort

to *percussion* to ascertain more correctly upon what this variation depends. The *perfect flatness* of the greater part of the abdomen, including the projection on the right side, contrasting strongly with the adjacent resonance, shows that *something has displaced the intestines*, for we cannot believe that the latter could have been so transformed as to give a sound so different from that met with in health. Percussion over the prominence in the right lumbar region giving precisely the same note as that over the adjacent portions of the abdomen, we may fairly infer that we have only different parts of one body. But the *percussion over the elongated prominence* in the lower part of the abdomen is very resonant. The character of this resonance is that of the intestine, and alternate pressure with both hands is accompanied by that peculiar gurgling sound caused by the movement of air and fluid in the intestinal canal. The form of this prominence, with the other peculiarities mentioned, indicates clearly the presence of a *loop or of loops of intestine*. Deep pressure here shows that the *intestine lies upon a firm body beneath it*, which may be traced until it completes the curved line of the left side of the abdominal mass, and gives to the whole an evenly rounded form, as shown by the line in the diagram.



We have, therefore, a large rounded tumor, filling the whole of the right and a portion of the left side of the abdomen, with some loops of intestine overlying if not adherent to it. You will also notice that the upper boundary of the flatness corresponds with that of the upper surface of the liver when in its normal seat, and may properly infer that while the new formation is in contact with, or may form a part of the liver, it has not displaced it.

The next question to determine is the *point of origin and true con-*

nection of the tumor, as its size and position oblige us to consider various parts, for, though continuous with the liver, it is lost in the pelvis.

We have already spoken of the significance of the early disappearance of the catamenia; we can base no diagnosis upon that. An examination of the *urine*, it is true, shows a deviation from the normal condition; the specific gravity is but 1·015, and there is a very small amount of albumen, with some crystals of oxalate of lime. Such modifications, however, have no necessary bearing upon disease of the kidneys themselves, and may be merely secondary. With these exceptions, there are no symptoms which call our attention to any particular organ. We will, therefore, *endeavor to ascertain its character*, and, this being determined, we may perhaps decide upon its seat.

We know that it is flat on percussion already; we know that it is bounded by a uniform curved line and is in contact with the intestines, a portion of which rest upon it. Its elasticity is such that we have reason to suspect a fluid, but we know that this peculiarity belongs to soft solids as well as fluids. By the ordinary test, we detect *marked fluctuation*, so characteristic that there can be no reasonable doubt about the presence of *fluid*. Considering the size, position and uniform outline of the mass, we must conclude that this fluid is contained within a sac; that we have a *cyst*, projecting into and occupying a large portion of the peritoneal cavity. *What is the character* of this cyst?

Such may form in the organs or adjacent tissues. It may be owing to the presence of *echinococci in the liver or elsewhere*, be connected with the *kidneys*, or with the *uterus or its appendages*. The patient tells us that she first noticed the tumor on the right side of the abdomen, but its exact position cannot be ascertained. Its absolute continuity with the liver, as shown by percussion, obliges us to give that organ full consideration. The complete flatness of the right side of the abdomen suggests the possibility that the intestines have been gradually displaced by some body extending from above downwards. But we must bear in mind, also, the possibility that so large a mass might compress the ascending colon to such an extent as to force out the air and deprive us of this evidence of the position of the intestine. But this point is not material, as a tumor, whether originating above or below, could enlarge without displacing that particular portion of the large intestine. If the liver be the seat of the growth, its size and form would indicate an echinococcus cyst, and the liver is as likely to form the nidus of the parasite as any other portion of the body. But such a disease is rare, and we should not be justified in diagnosticating it until we have considered and eliminated other organs which might be involved.

Cysts are met with in the *kidneys*, but the size alone would deter us from fixing the disease here. The *uterus* may be the seat of *fibro-cystic growths*; the *Fallopian tubes* may be *dilated* by an accumulation of *fluid*, or the *ovaries* may be the seat of *cystic formations* varying much in character.

Of these, cysts connected with fibroid growths of the uterus could not be expected to attain such a size; neither would the cysts of the Fallopian tubes, while such would be common in connection with the ovaries, and, enlarging upwards, would readily reach the liver. We

can, however, obtain additional information about the condition of the uterus by a vaginal examination. The latter shows that the organ is small, movable, and in its natural position. Though distention and displacements may be caused by ovarian cysts, such changes of form and position are much more likely to be connected with fibroid growths; and, taking the results of the examination in connection with the other facts, we must consider ovarian disease much the most probable.

It might be objected that, as a sac thus formed has necessarily a slender pedicle, and as the tumor before us does not fill the abdominal cavity, it should be movable. But it is well known that adhesions may form and prevent such mobility. But we have not yet excluded echinococcus cyst of the liver, and we cannot do so absolutely, although the character of the fluctuation and the relative frequency of the two diseases would lead us to decide in favor of the ovarian cyst.

Having made this *probable diagnosis*, we will resort to the *aspirator*, which ought to furnish us with conclusive evidence.

The fluid removed is opaque and of a brownish color. One familiar with the contents of ovarian cysts, would say at once that such a fluid indicated the presence of a formation of that character, but we may obtain still stronger evidence from a microscopic examination. We see in the field granular corpuscles resembling those of pus or epithelial nuclei, some of a larger size, of no definite character, and cholesterine. Though these elements are not absolutely characteristic, they are what we meet with in ovarian cysts, and there is an absence of any indication of the echinococcus. We may, therefore, consider the *diagnosis of an ovarian cyst established.*

Prognosis.—The prognosis, as far as the natural course of the disease has a bearing upon it, is unfavorable; and, considering the age and general condition of the patient, which unfit her for radical treatment, we cannot expect anything more than relief.

Treatment.—As the tendency is to persist and increase, we must interfere if possible. As no constitutional treatment has any effect upon the growth of a tumor of the kind, we must use surgical means. As the age and condition of the woman will not allow the removal of the growth, and as she suffers much from the distention, we must give relief by the operation of tapping. If it should be thought advisable to remove the cyst at a later period, it can be done. Some have objected to tapping, as it may excite inflammation and adhesion between the outer surface of the sac and the peritoneum, and thus interfere with the success of a subsequent operation, but experience has shown that if such an adhesion do take place no great harm follows. But it is not at all probable that our patient will ever be a fit subject for such an operation; she must be relieved, and tapping is our only resource. The use of a small trocar and the air-pump will reduce to a minimum any chance of injury.

By these means, fourteen quarts of the same brown liquid previously mentioned have been removed, with great relief to the patient.

The collapsed condition of the abdomen gives us an excellent opportunity to examine more thoroughly and ascertain whether the cyst be multilocular or not, for all of the above fluid has been drawn from a single cavity without changing the position of the trocar.

Such an examination shows, on the right side of the abdomen, where the projection was originally noticed, a solid, regular, flattened mass,

three or four inches in its transverse and six inches in its vertical diameter. Considering the form and feel of this, we have either a congeries of cysts containing fluid or a firmer fibro-cystic mass, perhaps containing colloid matter.

There only remains for us to better, as far as possible, the general condition of the patient by proper care and nourishment, and enable her to bear the returning discomfort which the re-accumulation of the contents of the sac will certainly produce.

Life Sustained by Nutritive Enemata for a Period of Twenty-two Days.—At the last meeting of the Bristol North District Medical Society, Dr. J. B. Whitaker, of Fall River, Mass., reported the following case:—

A strong, muscular man, 32 years of age, strictly temperate in all his habits, on the 3d day of May last, drank, by mistake, about three ounces of very strong, caustic potash lye. Antidotes were administered as soon as possible, but the injury was so severe that for thirty-nine days the patient could swallow only the most dilute liquids, and nutrition was aided by injections of beef-tea, gruel, &c. At the expiration of this time, a complete stricture of the œsophagus was formed, which prevented all attempts at deglutition for twenty-two days following. Efforts were made to overcome the stricture by the use of bougies, but not even the smallest could be passed. The patient was seen by Dr. Knight, of Boston, in consultation; and after a careful examination with the laryngoscope, and vain attempts to pass an instrument through the stricture, an unfavorable prognosis was given. Subsequent efforts, however, to dilate the stricture were successful, and a small bougie was passed into the stomach, after which a larger one, so that the patient could swallow fluids, and was improving satisfactorily. Subsequently, an attack of pleuro-pneumonia set in, from which he died seven days after the stricture had been overcome. The following is a summary of the case: Thirty-nine days supervened from the time of the accident to the formation of a complete stricture of the œsophagus. For *twenty-two days, the patient was wholly sustained by nutritive enemata;* and for seven days previous to his death he was able to swallow liquid nourishment, with tolerable freedom.

Dr. Hammond's Defence.—Dr. Hammond has published, in the *New York Medical Journal* for September, a very elaborate defence of his action in regard to the McCormick case. The line of defence is that there are certain subjects connected with medicine in which the public are especially interested, and upon which they desire information; and, further, that men of excellent standing in the New York and even in the Philadelphia profession have frequently gratified this desire of the laity for knowledge. . . . . How different in tone from Dr. Hammond's defence—which says in substance, "I allowed it; I furnished the wood-cuts to the newspapers; but the rest of you do the same thing"—is the recent indignant disavowal by Prof. Paget of any collusion with the publication of one of his lectures in the *Pictorial World!*—a disavowal in which he declares that he did all he could to prevent the publication, and adds, "I venture to hope that I am not thought likely to be guilty of encouraging the appearance of my name newspapers."

Is further comment needed? Will libel suits and indulging in the school-boy wit of calling editors names render the difference between these two courses less apparent?—*Philadelphia Medical Times.*

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D.

(Concluded from page 377.)

Pathological Anatomy.

Fatty Emboli of the Lungs.—That embolism from oil globules might occur in the pulmonary as well as in the general circulation, has long been recognized. Experiments have shown that the intra-venous injection of large quantities of oil would produce death within a few minutes, while that of smaller quantities would give rise to death within a few hours, apparently due to œdema of the lungs. The case of Wagner and the subsequent experiments of Busch have directed a closer attention to this subject, and have been of great influence in suggesting a rational theory for the cause of death in a certain number of those cases of severe injury where such has been attributed simply to "shock."

Wagner's case was that of a man whose thigh was broken. Death afterwards occurred, preceded by coma, and many of the capillaries in different parts of the body were found to be plugged with oil globules. Investigating the matter experimentally, Busch found that, after breaking bones and crushing the marrow, fat drops were set free and were apparently taken up by the veins. They were then carried to the lungs and obstructed the pulmonary capillaries, producing death by œdema of these organs.

Bergmann (*Berliner Klinische Wochenschrift*, 1873, No. 33) adds another case to the series. His patient fell from a height of thirty feet; there resulted a comminuted fracture of the thigh. After a short time, pain in the chest was complained of; later, a frothy, bloody expectoration was ejected, the respiration increased in frequency, the lips became livid, the temperature rose, and fine moist râles were heard throughout both chests. Bergmann made a diagnosis of acute œdema of the lungs, caused by fatty emboli, eliminating traumatic pneumonia and pulmonary hæmorrhage. Death occurred seventy-nine hours after the accident. At the autopsy, both lungs were found to be hyperæmic, œdematous, dotted with small dark spots, and containing hæmorrhagic infarcts of the size of a pin's head.

The microscope showed the arteries and capillaries to be filled to an extreme degree with liquid fat. The broken bones were very much comminuted, the marrow crushed, and free fat, mixed with blood, was found at the seat of fracture.

Fatty embolism may occur in other ways, as is shown by a communication from Egli (*Untersuchungen aus dem pathologischen Institut zu Zürich. Jahresbericht der Gesammten Medecin*, 1873, p. 214). He reports two cases where fat was found in the pulmonary vessels in the form of drops and cylinders. In one case the condition was extreme, and he states that, during the last four or five days previous to death, the patient suffered from violent dyspnœa. The source of fat in these two cases was considered to be thrombi in the right heart, which had undergone puriform softening. The degenerated clots were found to

contain abundant fat drops, large and small. He suggests that the absence of fatty emboli in the general circulation might be due to the action of the heart being enfeebled to such a degree as to be unable to force the fat drops through the pulmonary capillaries.

Croup and Diphtheria.—As the term diphtheria, or diphtheritis, has become rather vague in the course of time, Senator (*Sammlung Klinischer Vorträge*, No. 78, 1874) would use the term "cynanche contagiosa" to designate an "acute, contagious disease, which occurs chiefly among children, usually beginning with fever, and producing certain alterations of the mucous membrane at the junction of the respiratory and digestive tracts, or in those parts of both tracts in the immediate vicinity of this place of union; that is, alterations of the mucous membrane of the tonsils, uvula and soft palate, base of the tongue, larynx and bronchi, the posterior wall of the pharynx or of the nasal cavity."

The local anatomical changes present numerous variations, dependent upon the quantity and condition of the contagium, possibly upon its stage of development, and upon the disposition of the patient or of the organ affected. A simple catarrh of the mucous membrane is the mildest expression; this may terminate in complete recovery within a few days. That this is no ordinary catarrh is to be inferred from its epidemic occurrence, often in the same house with the severer forms of cynanche. Further, the glands of the neck are usually swollen, and, lastly, it may be associated with the development of the severer forms.

There are, first, small round or longitudinal grayish-white, membrane-like patches seated upon the catarrhal portions of the mucous membrane, and which can readily be removed, thus disclosing an apparently unaltered mucous membrane. These patches rarely remain longer than a day, as convalescence or the more serious condition then follows. They are composed of tesselated epithelium, more or less altered, with which are found vegetable spores. It is of great importance that there is no evidence of an inflammatory process in these patches.

Finally, the remaining form also presents flat, grayish-white patches in the pharynx. These are more intimately connected with the mucous membrane beneath, and, when separated, are found to be merely the upper surface of a shallow ulcer, which extends superficially. Pain and slight bleeding are produced by attempts at their removal. The tissues beneath are infiltrated with cells, contain extravasated blood, while the superficial portions, the patches, represent dead bits of tissue, which are more or less loosely connected with the parts beneath. These patches are composed of epithelial cells of varying size and in various stages of destruction, of pus and blood corpuscles, of blood coloring matter; also of granular detritus and spores. They are rather to be compared with the gangrenous masses from a bed-sore, and the process giving rise to them is best called an acute gangrene or diphtheritic inflammation.

The transition between this stage and the preceding is a gradual one and may be overlooked; at the same time, it is not essential that the epithelial patches should have preceded, more particularly where the disease is violent and progresses more rapidly.

Putrefaction readily takes place at the seat of the inflammation, and

may advance to such a degree as to give a most marked instance of moist or putrid gangrene. This is to be considered merely as a higher degree of the diphtheritic form.

In the larynx, trachea and larger bronchi, the epidemic of cynanche likewise produces a catarrhal and diphtheritic inflammation. The latter occurs almost exclusively in the upper part of the larynx, as far down as the true vocal cords, and on the epiglottis. The anatomical structure of these parts, as well as the rapidly fatal result in general, prevent such deep destruction as is found in the tonsils. The epithelial false membrane is not found in the air passages, owing to the delicate nature of the cells there, especially of the ciliated epithelium, which is never detached in continuous masses.

In the air-passages, however, the fibrinous or croupous false membrane is found, which seldom if ever occurs in the pharynx. This is essentially composed of a coagulated albuminate, so-called fibrine, pus corpuscles, and an occasional red blood corpuscle. The absence of epithelium and spores is notable. If this croupous membrane is fresh, scarcely any spores are found. The mucous membrane beneath it is apparently unaltered. The epithelial layer may often be recognized, though at times it is wanting. The deeper layers of the mucous membrane are infiltrated with pus corpuscles, but there is no extravasated blood.

The anatomical alterations produced by cynanche contagiosa are these: catarrh, epithelial shreds only in the pharynx, diphtheritic patches from diphtheritic inflammation above the vocal cords, and fibrinous false membranes from croupous inflammation in the respiratory tract below the vocal cords.

During the epidemic of cynanche, and dependent upon it, there has been observed a diphtheritic inflammation of other mucous membranes —of the conjunctiva, for instance, or of the genital mucous membrane. It is not, therefore, to be concluded that every diphtheritic inflammation of these membranes, even when endemic, is due to the cynanche. A diphtheritic inflammation may occur upon the surface of any wound or ulcer, under certain local or general conditions. In cynanche, it is the rule for these different forms of inflammation to occur side by side and to run into each other. When the child dies with cynanche, the *post-mortem* examination usually discloses membranous patches (diphtheritis) in the upper part of the larynx, the fibrinous exudation (croup) lower down in the air passages, and, still further downwards, a catarrh. It is usually impossible to say where the croupous membrane ceases and the diphtheritic membrane begins; nor is it to be stated that the former represents a less, the latter a more severe result of the cause of the disease. The process usually begins on the tonsils, soft palate or posterior wall of the pharynx, and is very often limited to these parts. It is very rare for the larynx to become affected without a previous inflammation, or a very rapid subsequent affection of the pharynx. The inflammation may extend from the pharynx into the nose or larynx, but rarely into the œsophagus. It may extend from the nasal cavity to the conjunctival mucous membrane. Senator does not absolutely reject the view that there may be a croup limited to the air-passages, and distinct from the cynanche or diphtheria. There seems no doubt that chemical irritants may produce a croupous inflammation of the

air-passages, and observers, up to a comparatively recent period, even now, state that in certain epidemics, while the air-passages are affected by the croupous inflammation, there is no alteration, whatsoever, of the pharynx. At the same time, he maintains that "in by far the greatest majority of all cases, at present, at least, the croupous inflammation of the larynx and air-passages is the result of the cynanche contagium, and occurs almost exclusively in epidemics of cynanche simultaneous with its other anatomical forms." Hence, in general, croup and diphtheria represent merely forms of one and the same disease, cynanche.

Senator regards it as indisputable that the contagious material of the disease is attached to the mucus, pus and shreds of tissue from the diseased parts of the throat, and as not improbable that the same is living and organized. At the same time, the micrococci found in this disease can in no way be distinguished from the organisms found in any putrefactive process, and their inoculation gives rise to no differing results; hence, they cannot be regarded as possessing any specific nature. The idea that the micrococci of putrefaction cause the cynanche, or that micrococci are the first and only cause of the disease, is opposed by the fact that they are not found in any quantity below the vocal cords. In addition, the disease almost never extends into the œsophagus, a road apparently so direct. Finally, the same anatomical alterations of the pharynx may occur in scarlatina and cynanche, while the alterations of the air-passages are very rare in the former disease.

It is considered quite probable, from reasons advanced, that the peculiar form of diptheritic inflammation is due to micrococci. Whenever diphtheritis occurs, the micrococci are found, almost without exception, and by inoculating an inflamed part with putrid material, containing micrococci, a diphtheritic inflammation may be produced. For the germs to become active, they must be sufficient in quantity, in a state of activity, and with a capacity for development, and the tissue must be capable of receiving them. In the pharynx, all these conditions are present. In the respiratory tract, the ciliary movement prevents the colonization of the micrococci, and the carbonic acid gas possesses antiseptic properties.

According to Senator, the unknown contagium of cynanche disposes to a violent inflammation of the parts affected, as that of scarlatina does to the pharyngeal mucous membrane, or that of measles to the mucous membrane of the larger air-passages, nose and eyes. As a result of the inflammation, the epithelium is loosened and elevated, and losses of substance occur. The spores, always abounding in the pharynx, enter the tissues, and give rise to the death of the inflamed, superficial layers, and the diphtheritis occurs. The latter is, therefore, secondary, and may follow other forms of pharyngeal affections, as in scarlatina, variola, syphilitic ulcers, &c. The diphtheritis once established, and the micrococci favored with so suitable a soil, the air may become readily infected by them, and every ulcer exposed to this air may readily become diphtheritic. There is no necessity, however, that the cynanche poison should be therewith transmitted.

Bibliographical Notices.

The Building of a Brain. By EDWARD H. CLARKE, M.D., Author of Sex in Education. Boston: James R. Osgood & Co. 1874. Pp. 153.

IT is not to be expected that this work should create an excitement similar to that which followed Sex in Education. Continuations and second parts almost invariably cause some disappointment, from the fact that they can only elaborate the original central idea. The scope of Dr. Clarke's former book may be stated in a few words: he argued that women are not men; not that they are inferior to them, but different, and that, owing to their special functions, the education of girls cannot be conducted on the same plan as that of boys. Trite and indisputable as these statements must appear, it was curious to observe that a certain class, far from looking on them as truisms, were inclined to find in them the deepest insult to the sex, and the greatest disparagement of it. The reception of the book, both by friends and foes, shows how much it was needed.

In the present work, the question is approached rather differently, but the object is the same. The book is divided into three parts; the first, which was read last summer before the National Educational Association, is entitled "Nature's Working Plans;" the second, an "Error in Female Building," is cumulative evidence in support of the views advanced in "Sex in Education," containing the opinions of many well fitted to speak on such matters, and the sad details of the case of an ambitious and not unhealthy girl, whose death was traced to over-study. The third part, a "Glimpse at English Brain-building," is a striking picture of the care with which girls are brought up in England, the absence of excitement, and the attention to health.

The first part is the essential one of the book; and we regret that we find in it much to criticize. We regret this, for we are quite in accord with the author as to his conclusions, and we fear that a captious and unfriendly critic may direct attention from these just conclusions to what we believe to be errors in the physiological argument. We will quote Dr. Clarke's statement of the way in which he uses the word *brain* (which is made to include the whole nervous system). "First, brain is used as the correlative of mind, not from a materialistic point of view, as if mind (including volition) and brain were identical, but because we know, and only can know, the mind through the brain. The quantity and quality of the latter determine for us the quantity and quality of the former. The development of the soul and mind—of the *ego*—resolves itself into the development of the brain. The artist who builds a fountain looks carefully after the strength and structure, the quality and form; of what he builds, and troubles himself very little about the water which is to animate his work. He knows that jet and drop and spray will pour out just as the fountain permits the flow. In proportion to the character of its structure will be the manifestation of mind and spirit through it. Build the brain aright, and the Divine Spirit will inhabit and use it. Build it wrongly, and the Devil will employ it. The development of the mind, then, means, practically, the development of the brain; and the building of a brain is a part of education" (p. 23). As to the problems before us, they are two, "first to develope the individual to the highest degree; and, secondly, to obtain this development without interfering with the perpetuation of the best. In other words, humanity demands, and our education must give, both the highest development of the individual, and the perpetuation of individuals thus developed, or, as it is commonly expressed, the perpetuation of the fittest. It has been argued, with much apparent force, that these two results are impossible, because the highest cerebral development, being made at the expense of the rest of the organism, sterilizes the individuals whose brains attain such supposed magnificent proportion and quality. This is not the place, nor does it fall in the scope of this paper,

to point out the fallacy of such a statement. It is referred to only for the purpose of calling attention to a physiological error that has already been grafted into our system of education, and which exerts the most pernicious influence in our common and high schools, viz., the error of exclusively developing one part of the organization at the expense of and by ignoring the rest" (p. 15). The author considers such development abnormal, and says, further on, "No perfect brain ever crowns an imperfectly developed body." Now we can hardly assent to the compromise made between the religious and materialistic doctrines; we imagine it would be equally unsatisfactory to Prof. Tyndall, and to his adversary, Dr. McCosh. Had the author taken the purely materialistic ground, his position would have been stronger, but as it is, the simile of the fountain is unfortunate. It is true that the water can be known only through the fountain, but only the shape assumed by the water is modified by it; it may be clear or turbid, fragrant or foul, carrying strength or infection as it falls in the same graceful curve, just as good or bad thoughts, pure or corrupt principles may be equally strongly, eloquently, convincingly expressed by a well-developed brain. It is true that for the water to do its office, good or bad, the fountain must be well built, but no perfection in its structure will change the character of the fluid flowing through it. Was it necessary to open the door to such an unprofitable discussion as the above remarks suggest? We think not.

Let us next consider what is the fittest type of man. Our author apparently says, one with all his parts well developed and in perfect relation to each other; and he implies that greater perfection is synonymous with greater development so long as the proportions are not disturbed. Granted, that if the world were peopled with such creatures the average would be improved, the result, none the less, would be the apotheosis of mediocrity. Dogs shall furnish us an example. We have some excellent for swiftness, some for strength, some for keenness of scent, some for their affection, &c. &c., and by judicious crossing two or more of these excellencies may be combined. Now it may be said that when any of these qualities is excessive it is at the expense of others, that the strength of the bull-dog is at the expense of his speed, &c., but who would be content to relinquish all extremes of excellence and to have dogs neither very swift, nor very strong, nor very keen scented, nor very affectionate, but possessing all these qualities in a moderate degree? Whatever makes any given dog particularly valuable would be lost. If it be true, as Dr. Clarke supposes, that the human brain of to-day will be to that of the distant future, "as the lenses of two hundred years ago are to those of the present day," we are sure that it will not occur through the perpetuation of faultless insignificance. Even if the rule were universal that extraordinary development of one part, say the brain, renders the individual sterile, it may still be occasionally desirable. Though the family perish, ideas may live and have an effect on future generations, not for evil only, as the author implies, but for good also. We do not remember whether Isaac Newton had children or not, but even if he had, it is as a mathematician, not as a breeder, that he has claims on our gratitude.

Again we cannot accept without question the dictum that "no perfect brain ever crowns an imperfectly developed body." Let the reader recall a number of the best brains he can, and count up how many of them were or are in sound and perfect bodies, or, what is more striking, let him test the converse by thinking of a number of the best developed bodies (excluding cases of excessive development), and tell us how many of them are crowned with proportionately developed brains.

We admit the fitness of Dr. Clarke's ideal of a man to recruit the rank and file, but for leaders in the various arts and sciences, which are roads to progress, we must have those specially fitted for their respective pursuits. Far be it from us, moreover, to undervalue education, or to dispute that there is an intimate relation between the brain and the other organs, and that the nature of the brain, the health, character and future of the individual depend largely upon education. Our dissent from some of the author's physiological and social theories does not in any way prevent us from accepting the point

on which he strongly dwells—namely, that though the sexes are different merely in sex, the difference for the most elementary reasons, necessitates, at least after a certain age, their separate education. "But this identity of method in cerebral architecture, which requires that every organ and function in both sexes should have appropriate development and exercise, as a part of brain-building, implies, or rather necessitates, a difference in education between the sexes, just so far as there is a difference of organization and no farther. Identical education of the sexes is in the last analysis equivalent to an unjust discrimination between them: their appropriate and consequently different education is equivalent to the same method of brain-building" (p. 51). "The stimulus of emulation, of constant, daily competitive work, affects the two sexes differently during the epoch of development. A boy is less susceptible to this stimulus at that time than a girl; so that when the same stimulus is applied to the two sexes, at the same time and in the same way, if enough of it is applied to keep a boy well up, it is a physiological injury to a girl; if only enough is applied to keep her properly at work, the result is a physiological injury to him" (p. 63). We must allow ourselves one or two more short quotations as examples of the wisdom of the practical part of the work and of the clear and forcible style in which it is presented. "It is as unphysiological and fraught with danger to make the brain work over books, before its tissue is ready for that sort of cerebration, as to coax a baby to stand, before the bones of its legs are stiff enough to hold up the body" (p. 45). And again, when explaining that he would not be understood to advise that the attention of the young should be directed to their organs and functions, the author says, "one, whose brain ever watches his stomach, is sure to generate a worse dyspepsia there than ever hot bread or unnatural luncheons caused" (p. 47).

We believe the book will do much good, and our criticism is, that, as the conclusions could have been reached by a much simpler line of argument, based on indisputable physiological facts, it was a mistake to introduce theories still open to discussion.

BOOKS AND PAMPHLETS RECEIVED.

Clinical Lectures on Diseases of the Nervous System. By Wm. A. Hammond, M.D. Reported, edited, &c. by T. M. B. Cross, M.D. New York: D. Appleton & Co. 1874. Pp. 287. (From A. Williams & Co.)

Essentials of the Principles and Practice of Medicine. By Henry Hartshorne, M.D. Fourth edition. Philadelphia: Henry C. Lea. 1874. Pp. 547.

Tinnitus Aurium. By Laurence Turnbull, M.D. Reprinted from the Philadelphia Medical Times. 1874. Pp. 16.

On Deaf-Mutism and the Method of Educating the Deaf and Dumb. By Laurence Turnbull, M.D. From the Transactions of the Medical Society of the State of Pennsylvania. 1874. Pp. 7.

Erysipelas and Childbed Fever. By Thomas C. Minor, M.D. Cincinnati: Robt. Clarke & Co. 1874. Pp. 131.

Code of Ethics, Constitution and By-Laws of the Kansas State Dental Association, adopted May 5, 1874. Pp. 14.

Annual Report of the Kansas State Dental Association. 1874.

The Physiclans' Visiting List for 1875. Philadelphia: Lindsay & Blakiston. (For sale by A. Williams & Co.)

Infant Diet. By A. Jacobi, M.D. Revised, enlarged and adapted to popular use by Mary Putnam Jacobi, M.D. New York: G. P. Putnam's Sons. 1874. Pp. 119. (From A. Williams & Co.)

Erysipelas, its Treatment with Sulphate of Quinine. By Y. R. LeMonnier, M.D. From the New Orleans Medical and Surgical Journal, November, 1874.

Biennial Report of the Officers of the Vermont Asylum for the Insane for the two years ending August, 1874. Pp. 56.

Boston Medical and Surgical Journal.

Boston: Thursday, October 22, 1874.

In answer to a call, signed by a number of prominent gentlemen, which appeared in the papers yesterday, a public meeting will be held to-day, at half past ten, in Horticultural Hall, for the purpose of raising a large sum of money for a new building for the Harvard Medical School. The Hon. J. H. Clifford will preside, and addresses are expected from President Eliot, Dr. Holmes, Dr. E. H. Clarke, and the Rev. E. E. Hale. The signers of the call are Messrs. Henry P. Kidder, Martin Brimmer, J. Ingersoll Bowditch, Nathaniel Thayer, Henry L. Pierce, John A. Lowell, and Drs. Calvin Ellis, B. E. Cotting, and Charles E. Ware.

Though the history of the Medical School for the last few years is pretty well known, we must review it briefly, to show the claims of the institution. In 1871, the Faculty, tired of the unsatisfactory method of instruction, which is still retained in every other American school, decided, at no matter what pecuniary loss, to do its duty by the community, and to make a radical change in the course. The new plan abolished the dreary winter term, in which, from morning to night, the same lectures were forced in rapid succession upon the youngest and the oldest students, and demanded attendance throughout the whole academic year. Recitations and laboratory work were made of equal importance with lectures. Certain studies were allotted to each year, and the student was forced to pass a satisfactory examination in the majority of them, under penalty of falling into the succeeding class. A course for graduates has since been established for the benefit of those wishing to devote themselves to special branches, or to make original investigations. The Faculty met, at first, with no great encouragement; many did not believe that the time had come to raise the standard of education so high in this country; others, though approving of the movement, thought it must end disastrously, from want of funds. In spite of these gloomy forebodings, the attempt has met with complete success, and it has been shown that the effort was not premature. This year, already, about one hundred new students have begun the study of medicine. It is said that the college should have waited for an endowment, but, as President Eliot well remarked, in a speech on the subject at the dinner of the Medical Society, in 1873, the best way to obtain one is to deserve it. This has been done: the Harvard Medical School, from one of the first, has become the leading school in America, and, if we mistake not, ere long, still

further advances may be expected. What is now needed is money, not to fill any deficit, but to give the school proper accommodations. The building is entirely inadequate; every available inch has been converted into laboratories, and more are required. The building, surrounded by inflammable structures, is not thought fit to contain the valuable collection, much of which is stored elsewhere. The collection belonging to the Society for Medical Improvement will be transferred to Harvard as soon as there is a proper place to receive it. When we consider how much the school has accomplished without assistance, we hardly dare, lest we should be thought to exaggerate, to dilate on what might be expected, had it only the opportunity to carry out its desires. The country may be spared the reproach of seeing the richer graduates, who desire a perfect medical education, flock to foreign schools, while the poorer ones complain that, by being kept at home, they must start in the race for success with the drawback of insufficient training. Give it but the means, and the Harvard School will be the great medical educational centre of America.

We are glad to see that the matter has been taken up by the community in a way that promises the best results. The profession, we trust, will leave no stone unturned to assist in a work which must redound to its own honor. We most earnestly commend the project to all friends of education; in no other way can they do so much, not only to advance science, but to diffuse most generally its practical blessings.

At the regular meeting of the Boston Society for Medical Improvement, held on Monday, October 12th, on "Reports of Committees" being called for, Dr. D. H. Storer rose and said :—

"Mr. Chairman : At the last meeting of the Society, Drs. Jackson, Abbot and myself were appointed a committee to prepare resolutions which should express our sense of bereavement at the death of Jeffries Wyman. As chairman of the committee, it was expected and earnestly desired that Dr. Jackson should present these resolves; he, however, has requested me to perform this duty, and I could not refuse the opportunity to offer my sincere tribute to the memory of my departed friend.

"The Corporation of Harvard University, the trustees of the Peabody Museum, the American Academy of Arts and Sciences and the Boston Society of Natural History have each acknowledged their indebtedness, and expressed their gratitude. It is peculiarly appropriate that the members of a profession, of which he was a most honored associate, should add their voice to the universal lament. We would not utter one syllable of exaggerated praise; we would not insult the memory of our friend by a word of fulsome eulogy.

"In behalf of the committee, I offer the following resolutions:—

"*Resolved*, that, by the death of Jeffries Wyman, our Society has experienced an irreparable loss. Distinguished for the accuracy of his information in the department to which he was particularly devoted, we confidently applied to him to settle any doubtful question which might arise. His readiness, upon all occasions, to remove existing difficulties, his uniform courtesy, his modesty in expressing his opinions, his care never to detract from others' labors while reciting his own, caused him to be esteemed and admired.

"*Resolved*, that, while we thus honor his memory as a physician, we would recall, also, his *humanity;* we would dwell upon the purity of his every-day life; we would remember the depth and duration of his friendship; we would enshrine the man in our hearts.

"*Resolved*, that we extend our sympathy to his afflicted family, and transmit to them the above resolves."

These resolutions were unanimously carried, and the Secretary was instructed to publish them in the Boston Medical and Surgical Journal.

F. B. GREENOUGH, M.D.

BOSTON DISPENSARY.—The following are the statistics of this institution for the year ending September 30th, 1874. The number of new patients visiting the central office was 23,040. They are classified as follows:—

	Men.	*Women.*	*Children.*	*Total.*
MEDICAL DEPARTMENT.				
1st quarter,	678	1477	867	3022
2d "	1075	1299	899	3273
3d "	1076	2014	1366	4456
4th "	1063	1734	2296	5093
Total,	3892	6523	5428	15,844
SURGICAL DEPARTMENT.				
1st quarter,	329	235	120	684
2d "	378	210	148	736
3d "	413	278	232	923
4th "	372	234	196	802
Total,	1492	957	696	3145
DENTAL DEPARTMENT.				
1st quarter,	107	156	149	412
2d "	107	128	216	451
3d "	123	150	238	511
4th "	128	197	255	580
Total,	465	631	858	1954
SKIN DEPARTMENT.				
1st quarter,	152	138	111	401
2d "	132	96	179	407
3d "	185	140	127	452
4th "	177	184	214	575
Total,	646	558	631	1835
DEPARTMENT FOR DISEASES OF NERVOUS SYSTEM.				
1st quarter	53	24	3	80
2d "	41	21	12	74
3d "	36	35	5	76
4th "	34	31	7	72
Total,	164	111	27	302

The number of patients visited at their homes by the District physicians is as follows:—

	Men.	*Women.*	*Children.*	*Total.*
1st quarter,	497	1154	1320	2971
2d "	662	1454	1504	3620
3d "	585	1298	1578	3461
4th "	557	1305	1716	3578
Total,	2301	5211	6118	13,630

RESULTS OF TREATMENT.

Discharged, cured or relieved,	12,697
Sent to Hospitals, or removed from Districts,	555
Died,	372
Remaining under treatment,	156
	13,780

Under treatment at last annual report,	150
	13,630
Number of cases treated at Central Office,	23,040
Total treated at Central Office and in the Districts,	36,670

PATIENTS, NEW AND OLD, AT CENTRAL OFFICE.

1st quarter,		10,603
2d "		10,755
3d "		12,436
4th "		13,448
Total		47,242
Number of cases of midwifery,	181	
Number of recipes,	75,510	
Daily average,	256	
Sunday average,	16	
Number of recipes since July, 1856,	831,871	
Number of patients since October, 1796,	519,641	
Number of patients since July, 1856,	399,839	
Average daily attendance of patients at Central Office,	153	

SURGEONS.

John Homans, M.D.
J. Brackett Treadwell, M.D.
Samuel W. Langmaid, M.D.
Thomas B. Curtis, M.D.

PHYSICIANS.

J. McLean Hayward, M.D.
Frederic I. Knight, M.D.
Charles E. Inches, M.D.
J. Franklin Appell, M.D.
Robert Disbrow, M.D.
Thos. Waterman, M.D.
Henry Tuck, M.D.
W. H. H. Hastings, M.D.
Wm. L. Richardson, M.D.
William E. Boardman, M.D.
Charles P. Putnam, M.D.
Theodore W. Fisher, M.D.
Thomas Dwight, Jr., M.D.
Reginald H. Fitz, M.D.
Josiah L. Hale, M.D.
William H. Baker, M.D.

DEPARTMENT FOR DISEASES OF THE NERVOUS SYSTEM.

Samuel G. Webber, M.D.
David F. Lincoln, M.D.

DEPARTMENT FOR DISEASES OF THE SKIN.

Francis B. Greenough, M.D.

DENTAL DEPARTMENT.

Forrest G. Eddy.
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John J. Kelley, Apothecary; Clarence W. Huntington, Assistant Apothecary.

ALFRED L. HASKINS, M.D., *Superintendent.*

Obituary.

DR. NATHANIEL BRADSTREET SHURTLEFF died of apoplexy on October 17th, in the sixty-fifth year of his age. He graduated at Harvard in 1831, and took his medical degree in 1834. He was gifted with a great taste for scientific, and still more for literary, pursuits. Besides being a member of various medical societies, he held a prominent position in many others, among which we may mention the Boston Society of Natural History, the American Academy of Arts and Sciences and the Massachusetts Historical Society. He was an honorary member of the Royal Society of Antiquaries, of London; and, for twenty-two years, he had been secretary of the Board of Overseers of Harvard College. He was Mayor of Boston in 1868, 1869 and 1870. He was the author of several works, chiefly historical. His death will be widely regretted.

Medical Miscellany.

We learn from Washington papers that Dr. Joseph Taber Johnson has been elected orator to the Society of the Alumni at the annual commencement of the Medical Department of Georgetown University next March.

Suppression of Urine for Twenty-five Days.—Dr. A. W. Fontaine narrates an instance of suppression of urine, lasting twenty-five days, occurring in a woman about twenty-one years of age, somewhat predisposed to hysteria, and the subject of some obscure spinal affection.—*Virginia Medical Monthly*, Oct., 1874.

Statistics have been recently collated in Bavaria with respect to the color of the eyes, hair and skin of school children. The first report, coming from Ausbach, gives the total number of children examined in this place at 1,517. Of these, 36 per cent. were found to have blue eyes, 30 per cent. grey and 34 per cent. brown. As regards the hair, 47 per cent. exhibited blond hair, 49 per cent. brown, and 4 per cent black. In 81 per cent., the skin was white, in 19 per cent., brown.

Idiopathic Rupture of the Spleen.—Mr. Edward Atkinson, of Leeds, reports a rare and interesting case of death from idiopathic rupture of the spleen, occurring in a lady, aged thirty-five, who had been subject to an irritable stomach, with occasional attacks of pain in the gastric region. She had experienced no very decided symptoms, however, until twenty hours previous to death. The character of the lesion was only revealed by an autopsy.—*British Medical Journal*, Sept. 26.

Perforation of the Rectum.—A young girl, fifteen years of age, in attempting to jump upon the knee of her uncle, came down upon a walking-stick, which she had not observed him to be holding between his legs. The end of the stick penetrated the anus. She withdrew the stick, and, though she complained of pain, was able to keep in good spirits for the rest of the day. On the following day, symptoms of acute peritonitis supervened, and, on examination by the attending surgeon, Dr. C. S. Jeaffreson, a rent was discovered in the anterior wall of the rectum, which was large enough to admit the finger into the peritoneal cavity at the apex of the recto-vaginal pouch. Death took place within forty-eight hours, and the site of the wound was verified by *post-mortem* examination.—*British Medical Journal*, September 26.

Mortality in Massachusetts.—*Deaths in seventeen Cities and Towns for the week ending October* 10, 1874.

Boston, 160; Worcester, 26; Lowell, 27; Milford, 2; Chelsea, 5; Cambridge, 13; Salem, 7; Lawrence, 8; Springfield, 10; Lynn, 12; Fitchburg, 2; Newburyport, 1; Somerville, 10; Fall River, 21; Haverhill, 5; Holyoke, 10; Pittsfield, 6. Total, 325.

Prevalent Diseases.—Consumption, 55; cholera infantum, 35; typhoid fever, 25; diarrhœa and dysentery, 12; pneumonia, 11.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Oct. 17, 133. Males, 75; females, 58. Accident, 3; apoplexy, 5; inflammation of the bowels, 4; disease of the bowels, 1; bronchitis, 3; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 2; cancer, 2; cholera infantum, 13; consumption, 24; cerebro-spinal meningitis, 1; convulsions, 2; debility, 5; diarrhœa, 5; dropsy of the brain, 3; drowned, 2; dysentery, 1; diphtheria, 1; diabetes, 1; erysipelas, 1; scarlet fever, 3; typhoid fever, 6; gastritis, 1; disease of the heart, 3; intussusception, 1; indigestion, 1; intemperance, 3; disease of the kidneys, 3; disease of the liver, 3; congestion of the lungs, 1; inflammation of the lungs, 6; marasmus, 3; old age, 2; paralysis, 4; pleurisy, 1; premature birth, 3; puerperal disease, 2; peritonitis, 2; suicide, 1; syphilis, 1; teething, 1; whooping cough, 1; unknown, 1.

Under 5 years of age, 53; between 5 and 20 years, 11; between 20 and 40 years, 38; between 40 and 60 years, 14; over 60 years, 18. Born in the United States, 94; Ireland, 22; other places, 17.

THE

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Original Communications.

SERIOUS PATHOLOGICAL CHANGES IN MYOPIC EYES.

By HENRY W. WILLIAMS, A.M., M.D.
Professor of Ophthalmology in Harvard University.

I HAVE lately had under my notice four cases, where eyes, which had previously been merely included in the category "near-sighted," not only became blind, in consequence of separation of the retina, but were afterward the seat of still further changes—the formation of cataract, and, in one instance, the establishment of irido-choroiditis, which gave rise to symptoms of sympathetic irritation in the other eye. All these serious results could be directly traced to the progressive increase of the previous myopic conditions of the fundus of the eyeball. As they supervened, in every instance, without any suspicion, on the part of the patient, that the eyes were being used imprudently, and without any warning of impending danger, I think these specimen cases worthy of being brought to the notice of the profession, as showing how grave may be the ultimate consequences of over-use of near-sighted eyes.

CASE I.—A young lady, from New Brunswick, consulted me March 30, 1874. Ever since her early school-days, she had been highly myopic; but considered her eyes "very strong," and used them excessively. Some months ago, she observed a sudden obscurity, quickly going on to complete blindness in one eye. At first, the field of the pupil was clear, but cataract was gradually developed. More recently, the eye had become sensitive to touch, and occasionally painful, with considerable injection of the ciliary region. The other eye now shows distinct signs of sympathetic irritation, threatening to become sympathetic ophthalmia and destroy the sight. This eye, also, is exceedingly myopic, showing, with the ophthalmoscope, very large, posterior staphyloma around the optic nerve entrance. Its acuteness of vision is very much lessened, partly, no doubt, from the beginning of sympathetic ophthalmia. The fundus of the blind eye could not be seen with the ophthalmoscope, on account of the cataract; but sufficient appearance of fluctuating folds behind the lens could be made out, to prove the existence of retinal separation. The lens had been somewhat pushed forward, as in glaucoma, and was shrunken in size, and to this displacement, with the extensive detachment of the retina, must be attributed the inflammation in the iris and ciliary region.

Immediate removal of the disorganized globe was advised, to preserve the other eye from the threatened danger. The best results followed the operation, all morbid symptoms soon subsiding in the opposite eye.

Section of the enucleated eye showed complete separation of the retina, except at its attachment around the entrance of the optic nerve. It was compressed into a mere cord, extending from the optic disc to the posterior surface of the crystalline lens. The lens had become almost cretaceous, and its pressure against the iris and ciliary body had been similar to that produced by any foreign substance.

Case II.—Miss ——, of New Orleans, consulted me August 3d, 1874. She had been an ambitious teacher, and used her eyes continually for small objects, believing, as her eyes were near-sighted, she "could do anything with them." In January, 1873, she struck her left eye, in tearing a sheet of paper. Had some pain, and soon noticed dimness of sight. Some time after this, opacity of the lens was seen.

Her condition is as follows: The cataract of left eye seems swollen, and pressed forward against the iris, appearing, at first sight, as if the capsule had been torn. The deeper parts of the eye could not be seen with the ophthalmoscope; but the history of the case and the very slight perception of light indicated separation of the retina as having preceded the formation of the cataract.

In the right eye, vision was good for reading and writing, though at times she had great pain. It was myopic $\frac{1}{4}$, and the ophthalmoscope showed a large, posterior staphyloma, and some floating opacities in the vitreous.

The advice given was that no operation should be performed while the left eye remained quiescent, as the disorganized condition of the deeper structures forbade the hope of any restoration of vision after the removal of the cataract. Great care was enjoined in the use of the other eye, that no fresh congestion should increase the changes already present. In case of any injection or tenderness of the left eye, no time should be lost before seeking advice.

After obtaining my opinion, the patient informed me that she had been under the care of Dr. Pope, of New Orleans, and that he had seen the separation of the retina soon after its occurrence, and had also observed turbidity of the vitreous, before these parts had become hidden by the lenticular opacity in the left eye.

The aspect and position of the lens in the left eye are such as threaten further mischief, and it is not improbable that the enucleation of this globe may become a necessity at some not very distant time.

In the other two cases to which I refer, the patients have been under my own observation during all the sequence of morbid changes.

Case III.—A gentleman, upwards of 50 years of age, had been exceedingly myopic, but had never had reason to give his eyes an anxious thought, and had congratulated himself on their supposed excellence. His business required their constant use for minute work. Suddenly, one-half the field of vision in his left eye became obscured, and, in about twenty-four hours, its sight was nearly lost.

I found extensive staphyloma in both eyes, and in the left an almost complete separation of the retina. After an interval of several months, cataract formed in this eye; but, as yet, no other symptoms have been developed by its presence.

Case IV.—A gentleman, of middle age, devoted to literary pursuits, had, for a long time, worn concave glasses of very high power, and was conscious that they gave him less and less assistance. A slight blow on his left eye, followed by pain and increased dimness of sight, led him to ask my advice.

Separation of the retina, to one-half its whole extent, could be perceived in his left eye. In addition to a very large, double posterior staphyloma, he had, in both eyes, considerable floating vitreous opacities, and greatly-diminished acuteness of vision. These changes were so considerable that the utmost care on his part has not sufficed to prevent their going on in a progress from bad to worse. The retinal separation has become complete, and cataract has formed in his left eye. In the right, an increase of the staphyloma, and of the floating filaments in the vitreous, and an effusion in the region of the macula lutea, have still further impaired his vision.

The fact that these and other lamentable results of progressive myopia are of so frequent occurrence, should induce the profession to interpose a word of warning, especially as regards near-sighted children, against the so general abuse of their eyes in excessive study.

A CASE OF CEREBRO-SPINAL MENINGITIS, ENDING IN RECOVERY.

By William Osgood, M.D., of Boston.

Ida ——, aged three years, became suddenly ill on the 30th of May, 1872. Although she had not seemed very well for a day or two, the first indication of serious illness was a convulsion on the morning of May 30th. I saw her soon after the convulsion. The face was flushed, skin hot, pulse 146, temperature 101½°. A dose of santonin and calomel was ordered—four grains of each—on the suspicion that the convulsion was caused by worms.

May 31st.—No more convulsions. Bowels moved freely, but no signs of worms. Pulse 100; temperature 99$\frac{6}{10}$°; skin moist; urine scanty and dark; general hebetude, with occasional twitching of the muscles. Ordered potass. bromid., gr. iv., every third hour.

June 1st.—Pulse 92; temperature 99½°. The torpor is now broken by uneasiness and screaming at short intervals, the shrieks being very loud and piercing.

June 2d.—Worse in every respect; constantly screaming and tossing about; shows no signs of intelligence. Impossible to take pulse or temperature. Bromide increased to four grains per hour, and tincture of ergot, gtt. x., every hour.

June 3d.—Worse. Twitching, restlessness and screaming continue, with strong opisthotonos. Ordered the ergot to be continued and the bromide to be increased to six grains per hour, and a blister, two by six, over the lower cervical and upper dorsal spine.

June 4th.—Blister well filled. Spasm less; more quiet; free perspiration for the first time since attack.

June 5th.—Improving. Head drawn back a little, but can be brought forward without causing pain. Pulse 120; temperature 99½°. Takes a little liquid food.

June 6th.—Had a very comfortable night; no spasm, and seems brighter and more intelligent. Eats freely of light food. Pulse 120; temperature 101$\frac{7}{10}$°.

June 7th.—Improving. Pulse stronger and the case presenting a much more promising aspect. The bromide and ergot have both been

continued, but with less frequency since the improvement commenced. She gets them now about once in eight hours.

June 8th.—Not so well; less appetite; head drawn back a little; pain in back of neck.

June 9th.—Appetite better than yesterday, but general condition not so good; feverish; pulse 120; temperature $103\frac{6}{10}°$; head drawn back; very restless.

June 10th.—Had a restless night, but seems better this morning; mouth and tongue sore; lips and teeth covered with sordes. To stop the ergot and bromide, and have wine, ℥i., tinct. opii, gtt. vi., in starch water, per enema.

June 11th.—Head still drawn back. Free perspiration, commencing soon after the injection; less thirst; takes less food (owing probably to soreness of mouth); pulse 130.

June 12th.—Not as well. Restless, with screaming spells; head drawn back.

June 13th.—Worse. Restless, screaming frequently. Am unable to take pulse or temperature. Ordered tinct. opii deodorata, gtt. x. p. r. n., till some quieting effect was produced.

June 14th.—Slept some during the night, after two or three doses of the opium, and seems torpid this morning. Takes no food. Skin generally dry and harsh; thirsty; pulse 120; temperature 101°.

June 15th.—About the same.

June 16th.—About the same, torpor and restlessness alternating with each other; head constantly drawn back, and the whole condition of the patient very unfavorable. The urine is scanty and high colored, I should judge, though it is not possible to collect any for examination; the odor is strongly ammoniacal. This has been the condition generally throughout the disease, but the bowels have acted daily, and frequently three or four times a day, from the first. She takes no food, excepting a little milk and water or a very little beef-tea. Ordered chloral hydrate, gr. x., tinct. opii, gtt. x., to be given per enema.

June 17th.—Took chloral and opium at 12, M., yesterday, and at 12, P.M., and has slept most of the time; takes beef-tea and but little food. Very comfortable. Temperature 100°.

June 18th.—Took chloral and opium at 8, P.M., yesterday, and slept well; takes very little food. Pulse 144; skin cool; free perspiration yesterday P.M.

June 19th.—Had chloral and opium once last night and slept well. Appears better. Pulse 110. Temperature $99\frac{1}{2}°$.

June 22d.—Takes less food and does not seem as well. Sleeps well with chloral and opium once in twenty-four hours. The weather being very hot and the location unhealthy, I sent the patient to the country today. She was taken to a house ten miles from the city, located on an elevated plain; soil light, dry sand.

June 24th.—Appears better; takes more food.

June 26th.—General condition worse; refuses food. Stop chloral and opium and give bromide of calcium, gr. iv. p. r. n.

July 3d.—Seems to gain very little in any way, and takes scarcely any food; irritable and restless. Pulse 130.

July 7th.—Remarkable change for the better commenced on the 5th. Appetite good and food well borne; sleeps well; less irritable, and in

all respects very much better. An eruption appeared on the 5th, of a vesicular character, covering the body, limbs and head, but more full on the face, head and lower part of the legs. This eruption was peculiar from the first. The individual vesicles resembled those of varicella, but in those parts of the body where varicella is most profuse, as on the trunk, there were the fewest vesicles; and the course of the disease did not resemble that of varicella. On the face, trunk and thighs, the vesicles shrivelled and dried into thin scabs during the first two weeks. No pus was seen in them, and, when the scabs fell, a dry, smooth red base was left; no pitting. On the scalp, the scales were thicker and remained much longer on account of the hair, but nothing like pus could be discovered. On the lower part of both legs and feet, the vesicles, instead of drying away as on the trunk, increased in size and became filled with a gelatinous substance, composed largely of dark blood. When pricked, a little thin fluid would exude, but the bulla would not collapse. The base was hard, a little elevated and red. In the course of two or three months, these bullæ scabbed over, and, when the scab fell off, they left hard, red nodules, which disappeared entirely in the course of about a year. The course of convalescence, from the 5th of July, was uninterrupted and the recovery was perfect.

The house in which this child was taken sick was located on low, made land, Kneeland St., Boston, and the drainage was evidently bad. No permanent improvement took place in the health till some days after her removal to the country, and then the improvement was very rapid.

The above case presents one or two points of peculiar interest; and, to me, the most remarkable fact is that recovery could follow a disease of so great severity, continued over a space of thirty-seven days. There were, it is true, periods of amendment during this time, but they were brief; the brain and spinal cord were at no time free from symptoms of inflammation or pressure. The eruption was one which could not well be classified among skin diseases, and yet it does not belong to the main disease in question. I have never seen anything exactly like it. In June, 1873, I had a case of cerebro-spinal meningitis in a child six years old, in which there was a papular eruption on the face and neck, lasting about three days, and then disappearing entirely. That case was one of very much less severity and shorter duration than the above. During the epidemic of smallpox in 1859, I had a case of varicella in a girl about eight years old, in which many of the pustules, instead of drying up at the proper time, increased in size and filled with fresh pus. When the scabs were removed, pure pus was found on a dull-red, sluggish-looking, spongy base; and, after final recovery took place, elevated scars of cicatricial tissue remained. Another fact in this case may be noticed, and that is that permanent recovery commenced with the advent of the eruption.

Poisoning by Sulphate of Copper.—A man has lately been condemned to death in Paris for having poisoned two wives with sulphate of copper, administered in small doses. Both women died with symptoms of violent pain in the abdomen, and continuous vomiting. The bodies were exhumed, and submitted to an analytical chemist, who was able to determine the presence of the salt in the liver and kidneys of each subject. The sulphate of copper thus obtained was displayed at the trial upon an iron plate.

Progress in Medicine.

REPORT ON PUBLIC HEALTH.

By F. W. Draper, M.D.

Cremation.

The advocates of cremation, as a sanitary measure, find their principal opponents on the side of superstition and sentimentality. No one has as yet disproved the theoretical sanitary advantages to be derived from this method of disposing of dead bodies; but since Sir Henry Thompson advocated the revival of the custom, as a hygienic reform made necessary by the growing scarcity of ground for burials in and near large communities, many strong protests have been made, from the pulpit and in the popular press, against the adoption of a "barbarian" rite, and the surrender of the traditional Christian way of conducting funerals. The prejudice growing out of hereditary habit has thus far been the main obstacle to an extended experience in the new, yet oldest, method.

Meanwhile, those who favor cremation urge their arguments with new vigor, and illustrate them with new facts. One of the most recent contributions to the literature of the subject is by Mr. W. Eassie, the Secretary of the London Cremation Society (*British Medical Journal*, Aug. 1, 1874). Mr. Eassie points out the positive evils for which inhumation is answerable. He shows that the fœtid air exhaled from the dead is fatal, if breathed in a concentrated state, and that even when dissipated and diluted by the wind, it lowers the vital powers of the community. He cites many cases where evil and even fatal results have attended exposure to the noxious exhalations of grave-yards. Grave-diggers and sextons have furnished many examples of slow or rapid blood-poisoning, as a consequence of their occupation. The danger of inhaling the atmosphere of churches under which vaults are used for interments is alluded to. The emanations from decomposing bodies will rise to the surface through eight or ten feet of gravel, the very soil preferred for burial purposes.

The danger of the infection of water supplies situated adjacent to burial grounds is insisted on by the writer, and is confirmed by many well-authenticated instances, which he quotes. The organic matters resulting from decay have been traced to cemeteries a very considerable distance away. Dr. Pietra Santa discovered an instance in which a number of springs, supplying water to a village, were contaminated by the percolation of putrefactive matters from a cemetery, situated at a distance, and states that, eventually, a general epidemic was produced, in consequence of the exposure.

These conditions, as well as the need which is constantly and increasingly felt, more especially in larger cities, for more room for cemetery purposes, make the matter of repudiating interment, and of substituting some other method, one of great consequence in its sanitary bearings. The writer shows that embalmment is impracticable and undesirable, that petrifaction is a failure, that sea-burial has no reasonable recommendation, and that cremation is all that is left to choose. Both in the ordinary necessities of civil life, and upon the

field, after battle, cremation fulfils all the demands of public health without the sanitary disadvantages attached to the burial of the dead.

An instructive paper in the *Gazette Médicale de Paris* for May 23, 1874 (translated in the *Chicago Medical Examiner*, Aug. 1, 1874), presents descriptions of the apparatus which has been tested for carrying cremation into practice. The writer says: "The technical result to be obtained is the resolution, as speedily as possible, of the organic substance of bodies, into the final and inoffensive products of combustion, and to avoid all intermediate reactions which offend the nostrils and injure health. The procedure should produce no disagreeable impressions on survivors, and should accord with that reverent respect due to the mortal remains of those who were dear to us in life." For the attainment of these ends, it has been found that no arrangement promises such a measure of success as that invented by Siemens. This apparatus consists of a series of chambers or regenerators, by means of which the air becomes super-heated, so that when it reaches the combustion-chamber, containing the body, it has attained a temperature which effects speedy and odorless consumption of the organic matters with which it comes in contact. The time requisite for the cremation of a human body by this process is one hour, and the expense is estimated at less than a dollar for each corpse. The writer describes other processes, which have been tested, as, for example, those of Polli, of Milan, and Gorini, of Lodi, but none of these fulfil all the requirements so well as does Siemens's regeneration system of calefaction.

A recent article in the *Abeille Médical*, of Belgium, charges cremation, as practised in India, among the Hindoos, with disseminating the cholera-poison, the gases which arise from funeral pyres being loaded with cholera-germs, and transported by the wind to distant territory. In contrast with this view is the statement of Mr. Long, for thirty years a resident of Calcutta (*British Medical Journal*, Aug. 1, 1874), who says "the Mahomedan burial-grounds there have long been a crying evil, and the nurses of cholera, fever and dysentery." The Moslems practise a shallow burial of their dead, and it is of frequent occurrence in the outlying cemeteries that the corpses are disinterred by jackalls. Mr. Long eulogizes the customs of the Hindoos, on the other hand, who, at the expense of a few shillings, burn the dead "out of their sight."

Disposal of Night Soil.

Until it is made compulsory upon urban house-holders to discharge all the sewage of their houses into properly-constructed drains, and thence into sewers, vaults will continue to vex the patience of sanitary authorities, and to contaminate the atmosphere of whole neighborhoods. Not the least important problem in the supervision of the excrementitious products of thickly-settled communities is how to remove the contents of vaults with decency, and with the least offence. The traditional night-cart, with its appendages of open tubs and buckets, is vanishing only too slowly before the more improved methods, adapted from the French system of odorless excavating. It is to be hoped that, before long, the old-fashioned way will be entirely supplanted.

The dry-earth system promised excellent results at the outset, but

it has found practical obstacles in the care and vigilance rendered necessary to prevent the development of nuisance in connection with it. Latterly, however, a new impetus has been given to this principle of deodorizing by what is known as the "Dalmuir System" of utilizing night-soil. This method was described at length in a paper read by Prof. T. Sterry Hunt before the American Association for the Advancement of Science at its meeting in August, of this year. The method was devised by Mr. Stanford, an English chemist. Charcoal, obtained from the charring of sea-weed, or of ordinary street-sweepings, is used as the deodorant, only one-fourth of this agent being needed as compared with dry earth. The odorless and partially dried mixture of charcoal and excrement is removed, from time to time, from the houses where it collects, and is subjected to a red heat in close vessels, like gas-retorts. The products of this process are water, ammonia, acetic acid, tar, gas and charcoal, the latter being augmented in bulk as compared with the original quantity. This dry charcoal may either be used again to deodorize, or may be utilized as manure, the accession of phosphates to it giving it much value for this purpose. Acetate of lime and sulphate of ammonia, also, are products of the distillation, and are in demand as fertilizers. It is noteworthy that the experiment, carried on at Dalmuir during the last three or four years, has been a source of profit to the company which manages the process, and of health to the community which supplies the materials.

Common Carriers as the Porters of Disease.

Assistant Surgeon Ely M'Clellan, U. S. A., writes, in the *American Practitioner* for August and September, concerning the transportation of contagious diseases on the lines of railroad and steamboat travel. The writer shows how the trains of passenger-cars may carry infection from place to place, and serve as a ready medium for the dissemination of epidemics. The plush covering of the seats offers an asylum to contagion in its meshes, while the mis-named *salon* at the end of each car affords facilities for the distribution and transportation of disease. The commode in this latter apartment is so constructed that the dejections of passengers fall directly on the ground, whence, in certain favorable situations, they may contaminate water-sources by surface drainage. Moreover, the water-supply of the cars themselves is strangely misplaced in most cases; the reservoir or water-cooler is half within the saloon above mentioned, and exposed to the unwholesome exhalations of the apartment.

Again, the writer severely criticizes the arrangements in the sleeping cars, and points out the fact that the means provided to secure the comfort of travellers may become the source of disease to them. Besides the defective ventilation of the cars, and the scanty allowance of air-space to each sleeper, danger to health arises from the facility with which persons sick from contagious diseases may secure passage in sleeping berths.

Some remedies are indicated for the improvement of this condition of things on railroad cars. The reservoir of drinking-water should be at the unoccupied end of the car; the urinals and commode should be so constructed, as regards material and plan, that frequent disinfection and cleansing may be practised; the bedding of all Pullman cars should be placed in a temperature of 250° at the end of each trip on

which it is used; the heavy, woolen curtains should be dispensed with, and lounges should be substituted for beds, so that disrobing, partial or entire, should be discouraged among passengers.

The writer alludes to other ways in which common carriers may transport contagion through clothing and other baggage conveyed from point to point.

Steamboats may also become the agents for the diffusion of cholera, smallpox, and other diseases in a manner analogous to that above described. The deck passengers on the western river-steamers have inadequate closet-accommodations, as well as scanty travelling conveniences; they pay for nothing but their passage, and at night lie exposed on the baggage of more favored cabin passengers. The contagious disease may remain latent and incubating during the passage, or it may break out on the route and the patient may readily infect the merchandise or baggage on which he rests.

Arsenical Poisoning by Wall-papers.

Renewed attention to this subject has been called by Dr. George Johnson, who has given an instructive and extended view of this source of disease in a lecture, published in the *Sanitary Record* for July 4 and 11, 1874. The writer cites a number of cases of poisoning, in which the symptoms were defined, and the exposure unequivocal. The inhalation of the arsenical dust (arsenite or aceto-arsenite of copper) mechanically separated from the paper on which it is laid as a pigment is considered the most probable source of the affection; the theory of chemical decomposition and the evolution of arseniuretted hydrogen or other noxious gases is not accepted.

The writer replies to objections that exposure to arsenical wall-paper is not uniformly followed by bad effects, by the statement that all cases do not come to the light, that many cases fail of detection, or are diagnosticated erroneously, and that very much depends on the idiosyncrasy or susceptibility of those exposed. A comparison is instituted between "hay-fever" or autumnal catarrh, and this variety of arsenical poisoning; just as most persons tolerate the pollen, or the parasite, which excites the former, so, also, the majority of people bear the presence of a small amount of arsenical dust in the air without developing the symptoms of chronic poisoning. Perhaps it would be better for the public safety, and would more speedily rid the market of the dangerous material, if there were a more general susceptibility. The writer very properly calls attention to the fact that the arsenical greens assume the most deceptive shades when combined with other colors, and that the poisonous substance may be found not only in the bright green papers, but in the pale green, gray, and even blue or brown hangings.

Hamberg has conducted a series of experiments on the air of a room hung with arsenical paper (Schweinfürt green) and has come to the conclusion that the poison exists in the air, not as dust, but as a gas, probably arseniuretted hydrogen (*Nordiskt Medicinisk Arkiv*, vi., 1874; *Medical Record*, Oct. 1, 1874). His apparatus was as follows:—

a. A U-shaped tube for the reception of the dust. *b*. Three similar tubes, filled with cotton, to completely separate the solid particles of arsenic from the air. *c*. Two bulb apparatuses, containing a solution of nitrate of silver, to collect any arsenic present as gas in the air.

d. Two gasometers, of fourteen litres capacity, alternately filled with water, to supply an aërial current.

The air was drawn through this apparatus, during a full month. In the course of the experiment, the solution of nitrate of silver gradually deposited a black precipitate, from which the characteristic arsenical ring was obtained by the Berzelius-Marsh apparatus.

Contamination of Aerated Waters.

A new source of lead-poisoning is pointed out by a contributor to the *British Medical Journal* of Feb. 14, 1874. He suspected the presence of lead in the potassa water which is sold in the ordinary syphon bottles so well known in this country for the dispensing of soda-water and the aërated mineral waters. He believed that the lead was derived from the metallic cap through which the water is discharged when used, and accordingly he placed a number of bottles of the suspected fluid in the hands of an expert chemist, who found lead in all the samples. Six syphon bottles of potash water, one of soda and one of seltzer were examined. In two instances, zinc was found with the lead. There was quite enough lead found in either one of the specimens to undermine health if the water were taken continuously.

Confirmatory evidence of this source of lead-poisoning is furnished by Mr. Wilson, who relates an actual case under his observation (*British Medical Journal*, Aug. 29, 1874). The symptoms of lead-disease were pronounced, but the source of the poison was not apparent at first. The water-supply of the house was tested and acquitted. At length, it occurred to the attendant that soda-water had been prescribed to be taken freely; and it was found that the patient had been taking the water to the extent of six or seven bottles daily, and that previously to her illness she had used it freely as a beverage. On analysis, the soda-water betrayed the presence of lead unequivocally, a gallon of the liquid giving nine tenths of a grain of the metal. Dr. Wallace, the chemist who analyzed the water, says, in his report, that a person taking forty ounces of the soda water daily "would thus be swallowing about a quarter of a grain of lead—a quantity far more than enough to give rise in a week or two to symptoms of lead-poisoning. Ordinary drinking water is considered dangerous if it contains one tenth of a grain of lead per gallon."

Those who prefer to imbibe their soda-water from syphon bottles in private, will be interested not only in the foregoing exposure of the risk they run, but also in another, and scarcely less important, fact concerning the same beverage. It has been ascertained by Dr. Lankester (*London Medical Record*, Sept. 2, 1874) that much of the soda-water of commerce is open to suspicion because of the presence of organic impurities. He tested six samples of the bottled water bought at druggists' and found a "considerable quantity of organic matter," with the residue of carbonate of soda. None of the samples proved to be what they pretended with reference to the amount of soda in solution.

Rate of Mortality in Foundling Hospitals.—"In Foundling Hospitals, at least one child in every two dies, while in that of Irkutsk, the rate of mortality during a period of two years amounted, according to Cochrane, to 100 per cent., not a single child being found there over one year old."—*Ziemssen's Handbuch.*

Bibliographical Notices.

Transactions of the Medical Association of the State of Alabama: Twenty-seventh Session, 1874.

This volume of Transactions is a credit to the Association under whose auspices it was published. In the character of the scientific papers, in the tone of the formal addresses, in the tenor of the business proceedings, even in the typographical appearance of the book, we see evidences of a mature vigor, an enthusiastic purpose and a progressive spirit, which we can heartily commend as worthy of emulation. It is exceedingly gratifying to bear witness to such enterprise. It is to be remembered that the war-cloud has hardly cleared away from the Southern sky, and that the medical profession in the South bore much of the burden, and still share many of the consequences, of the strife, so that it is especially noteworthy that this Alabama Medical Association can issue a volume of Transactions that would do credit to the most favored medical community.

We give a passing word to the organization of this Society, inasmuch as it presents some novel features. Unlike the State medical bodies with which the New England profession is familiar, and which are designed to include as many regular physicians as may be, in order to establish a standard of regularity in practice, the Alabama Society is composed of a permanent house of counsellors, numbering, at the maximum, one hundred members, and of delegates from district or county Branch Societies, the proportion being fixed. Thus, the membership is limited, and the best men in the profession appear as representatives. In many respects, the organization resembles the double legislative body of the National Congress. In all matters of ethics, of professional dignity, and of public medical policy, the Association utters its opinions emphatically, sensibly and hopefully.

The address of the President, Dr. Ketchum, introduced the deliberations of the three days' session. Its subject was the obligations of the medical profession with reference to the sanitary needs of the people of the State. Although largely devoted to an argument in favor of sanitary legislation in Alabama, urging measures which should bestow on the physicians of the State the legal authority to accomplish much needed work in the field of public hygiene, the discourse contained very much of general interest to sanitarians. Exposed, as this Southern community is, to incursions of yellow fever in addition to the epidemics which do not depend to such a degree on climatic influences, we cannot wonder that the medical profession demand the establishment of more and better sanitary precautions. In Dr. Ketchum's address, there are to be found many convincing arguments in favor of a well-regulated, scientific administration of State Medicine.

Dr. Michel contributed an exhaustive report on the Epidemic of Yellow Fever in Montgomery, during the summer of 1873. The cases of the disease numbered between four and five hundred in a population of eighteen hundred. The mortality was over twenty per cent. It was observed that, during the prevalence of the fever, the city was exempt from other diseases, and especially from malarial disorders. The writer considers the disease called "dengue" as a mild or modified form of yellow fever. It was noticed that almost all the cases of yellow fever occurring among females were accompanied by uterine hæmorrhage. In the matter of treatment, the essayist remarks: "The profession here, generally believing the disease self-limited, seldom resorted to medicine." The epidemic subsided with the first frost, thus illustrating an old observation.

Dr. Cochran offered a long paper on the general course of the Epidemic of Yellow Fever, which visited the South so extensively in 1873. It is a comprehensive history of the incursion, whose ravages, it will be remembered, were so terrible in Memphis and Shreveport and New Orleans. The report

contains many facts of great interest to sanitarians, as well as to those who have to deal with the dreaded disease hand to hand. As conclusions to be derived from the epidemic, the writer states that, in his belief, yellow fever is an exotic disease, transmitted by direct importation; that quarantine, though in its theory good, is only partially effective, because of well recognized practical difficulties; and that disinfection was a failure as a prophylactic measure.

Dr. Cochran contributed a second paper, the subject being the white blood corpuscles, in health and disease. The essay is an elaborate discussion of the chemical and physical characters of the white blood corpuscle, with a review of what is known concerning its physiological relations.

Dr. Anderson discussed the pathology and treatment of Dengue; he considers it a disease having special intrinsic characters, pointing to impaired nervous function, and in no way allied to yellow fever.

Dr. Bryce, the Superintendent of the Alabama Insane Asylum, made a strong plea in favor of State aid to hospitals; he urged the establishment of State Asylums for the insane, for the idiotic, for the deaf and dumb, and for inebriates. He also advocated State Medical Schools as a remedy for the deplorable laxity into which medical education has fallen in some sections. In this direction, his arguments do not appear convincing; we cannot quite accept his conclusion that the much desired reform would follow in the wake of State Endowments. Let the established medical schools carry out the reform already inaugurated, and there will be no need of State interposition. Moreover, the established schools will presently see that financial fortune does not rest alone on those which make the curriculum easy and graduation a farce; but that the college which makes its diploma a valuable acquisition, in all its respects, will not lack applicants for its courses of study.

A number of other papers and reports were read, all of them interesting, some of them very valuable as original observations, but our space will not permit any extended review of them.

It must be seen from the number, the variety and the character of all these papers, that the Alabama Medical Association sets its standard of excellence very high. These transactions forcibly illustrate the fact that medical enterprise and scientific attainment are not matters of monopoly, and that no section, however favored, can claim exclusive possession of wisdom.

Archives of Dermatology; a Quarterly Journal of Skin and Venereal Diseases. Edited by L. DUNCAN BULKLEY, A.M., M.D. New York: G. P. Putnam's Sons.

THIS new journal has appeared promptly according to the announcement. The Editor has enlisted, as co-workers, many of the specialists in these two branches of medicine in New York, Philadelphia and Boston, and there should be no reason why it may not be successful. His purpose is to adapt it to the wants of the general profession and to give it a practical character, while it is intended to record also all that is new and valuable in cutaneous and venereal diseases.

The subject-matter is arranged much after the manner of the *Vierteljahrschrift für Dermatologie und Syphilis*, as follows:—I. Original Communications. II. Transactions of the New York Dermatological Society. III. Clinical Reports. IV. Extracts and Translations. V. Digest of Dermatological Literature. VI. Reviews and Book Notices. VII. Correspondence and Miscellanies.

The first number contains several interesting communications, and the work under its various divisions seems, on the whole, to have been carefully done, although some looseness, inevitable, perhaps, at the start, is apparent in the arrangement of the subject-matter. Its appearance is handsome. We trust that it may receive a generous support from the profession throughout the country.

The Medical Register for Massachusetts. By F. H. BROWN, M.D. 1874.

EVER since the publication of the *Medical Register*, in 1873, a want has been felt among the profession for some similar work, which should take a wider range and include the whole State. It is a matter of congratulation that the same gentleman who so ably prepared the *Boston Register* should have undertaken the supervision of the book which has just been published. It forms even a more complete register of the State than the other did of the city.

A complete list of all the Medical Associations and Societies throughout the State is given, together with a list of officers, times and places of meeting, and a brief sketch of each. A list of all the hospitals and dispensaries follows, with the names of the medical and surgical staffs of each, and, what is of far more importance, the object for which each was established, and the method of obtaining the admission of patients. The various benevolent and charitable associations and asylums are also given, with full particulars as to the admission of inmates, and the names of officers. Then follows an alphabetical directory of the Massachusetts Medical Society, giving the residence, date of admission to the Society, the date of academic and professional degrees, official positions held and the various books and articles written by each member. A local list is also given, in which, under the name of each town and city in the State, are placed the names of members of the Society residing there.

A large amount of very valuable miscellaneous matter is also given, such as the rules and regulations of the Army and Navy medical service, the Pension Bureau, the statutes and ordinances affecting physicians and others in their relation to the State and local Boards of Health, besides a great deal of information on many kindred topics, which medical men are frequently asked about, but are rarely able to answer satisfactorily.

Like its predecessor, this book is very valuable; and while its author does not claim perfect accuracy in its pages, he may with justice take to himself the credit of having prepared a work which will be sought after and frequently consulted.

SLIPPERY ELM BOUGIES.—Dr. J. D. Moncure recommends the use of bougies prepared from the ordinary slippery-elm bark found in the drug stores, in the treatment of organic stricture of the urethra, considering the instrument preferable to all others for the following reasons:—

1. It can be more readily introduced than any other, because it is self-lubricating, and can be made as small as needed.
2. It is safest, because so flexible that, when properly prepared, it is impossible to inflict any injury.
3. It is the quickest in its action, as, like the sponge-tent, though in a less degree, it absorbs the moisture, and while in the stricture dilates the opening to almost double its original size.
4. It is far less irritating, and, indeed, is sometimes soothing to the inflamed mucous membrane.
5. It can always be introduced into any stricture through which the smallest continuous stream of urine can pass.
6. It requires no special amount of skill on the part of the operator to secure its introduction.—*Virginia Medical Monthly*, Sept. 26.

EMPLASTRUM HYDRARGYRI IN SYPHILIS.—Prof. Doutrelepont recommends the local application *emplastrum hydrargyri* in cases of syphilis. He states, that he treated most of the external symptoms with this plaster, and with the best results. In indurated chancres he observed, that, under the influence of this plaster, the base of the ulcer rapidly cleared up, while from the periphery a process of cicatrization was quickly established, the induration meanwhile disappearing.—*Allegm. Med. Centr. Zeitung.*

Boston Medical and Surgical Journal.

Boston: Thursday, October 29, 1874.

We are happy to report that the most gratifying success attends the movement for the new building for the Medical School. The meeting was all that could be desired, the speeches were eloquent, simple and to the point, and the committee well chosen. At the close, there was much enthusiasm.

The meeting has been reported so carefully that we think it necessary to give only a brief account of the proceedings. Ex-Governor Clifford, who presided, remarked that he might stand as an impartial witness of the purpose of the meeting. He deplored the neglect under which the school had suffered, in spite of its great merits and the services it had rendered. "If the School," he said, "had given but one Jeffries Wyman out of its 2,400 graduates; if, setting aside the bright names of the living and the dead, it had done nothing more, it would be entitled to the efforts of the community." President Eliot made an admirable speech, which he began by explaining that the movement originated with the profession, not with the authorities of the University. He detailed the progress which the School had made and dwelt upon its needs. He was particularly emphatic on the exposure of the Museum, concerning which we give his own words:—

"Our second need is to provide a safe deposit for one of the most precious anatomical museums in the country—one of untold value. I have been asked, why not insure the museum, so that when it is burned you can replace it? You might as well talk of insuring the Sistine Madonna. The loss would be irreparable. You could not replace it. We have already suffered much in this country from the destruction of medical museums. I am filled with apprehensions whenever I go to that building, at the immense risk of fire. There is but one mode of securing the collection, and that is by depositing it in a fire-proof building. We ask money for this specific purpose—to secure this museum, which has been the fruit of so much labor and devotion."

Dr. Holmes followed with a very eloquent address that will be long remembered, by those that heard it, as a very happy effort. We must be permitted to quote at some length from the part showing the claims which the profession has on the public:—

"The physician's life is one of sacrifice. He gives up not only his ease, if necessary, his health, and even his life, but what is dearer to some men, I might almost say, than any of these, namely, his habits. He drops his novel with the last chapter unread; he leaves the theatre with the fifth act just working itself up to agony; he gets up from a meal that is untasted; he leaves his pillow unpressed, or springs from it in the dead of night to brave the wildest storms of rain or snow; he has not an hour by night or day when you cannot summon him as if he were a slave, and you were his master. He does more than the good Samaritan—he goes to the wayside to look for the wounded travellers and carries them in his ambulance to his hospital, which

is an inn where there is no landlord to pay. He will stoop to wash your feet, if you are bruised and maimed, and do for you more than menial service at the call of humanity.

These are his sacrifices—what are your gains? The surgeon is constantly saving life. Where would you be without his aid in a case of strangulated hernia? . . . . . .

"And in woman's special hour of anguish, what do not she and those that love her often owe to the skill and care by which two precious lives are guarded or rescued? If the physician has not so often as the surgeon or the obstetrician the certainty that he has saved his patient from impending death, he cannot doubt that the measures he has taken not very rarely turn the uncertain balance in his favor. . . . . .

"As our cities grow larger and more densely populated, every year adds to the dangers arising from local causes of disease. We know too much of this practically here in Boston, where the death-rate is higher, I believe, than in any of our northern cities. We know, also, the diligent labors of our State Board of Health in the investigation of the sources of sickness and mortality, and their suppression. We have good reason to hope that their efforts will, if seconded heartily by the authorities, result in a great improvement in the health of a city which has prided itself on its freedom from malaria, and its care of citizens.

"To have good surgeons, obstetricians, physicians, boards of health, you must have good medical schools, and sound methods of instruction. We make no secret of the fact that we are not satisfied with the methods of instruction which were long followed in this school, and which prevail very largely throughout this country at the present day. They were as good, perhaps, as could have been expected in a new country, but Massachusetts is not a new country, at any rate, and Boston is not a new city, and Harvard University is the oldest in the land. Its medical department has taken the lead in the great educational reform, the leading aim of which is to send into your families men who shall be more able to help you in your hour of pain and danger, to make the coming into life and the going out as nearly like the hours of waking in the morning, and of closing the eyes in slumber at night as is permitted by the conditions under which we come into being."

Dr. E. H. Clarke regretted that the movement had not been made earlier, but explained that, while the old system lasted, delicacy did not permit the Faculty to take any part in it:

"Under the old régime, the college was made to contribute to the pockets of the professors in accordance with the number of students they graduated; and to ask for money to build a larger school was equivalent to asking for more money for their own pockets. This has all been changed. Professors and teachers stand on the same footing as in other departments. Much of the teaching is gratuitous. A better course of teaching is now carried on than in any other college in the country."

The Rev. E. E. Hale showed that the credit of the city is at stake to support the institution, which is one of its greatest honors. He said, "the truth is, that our reputation as a place where medicine is taught, and well taught, is far too precious to be put in question." And again: "We mean that the young men of New England, as they seek medical education, shall find here as good as they can find anywhere. We will enlarge our resources till, for every man, that shall be true."

Before the close of the meeting, a committee of fifty was appointed, which subsequently elected Dr. J. Collins Warren, Secretary, and prepared the following address:

"The Harvard Medical School, by its new system of medical instruction, now in successful operation, has effected an improvement in this branch of education of great value to the community. The high standard now set by the school is a radical change from the old, imperfect system of education, and the degree obtained from this school is a certificate of a more thorough education than can be obtained elsewhere in this country. The new system, by greatly increasing the amount of instruction, and particularly of laboratory instruction, requires more room than can be obtained in the present building. The lecture-rooms are small in size, and few in number, and the laboratories are imperfectly appointed, and in every way unsuited to the present wants of the school. The museum of anatomy, which is, perhaps, the best collection of its kind in this country, requires more room for its natural expansion, and for the reception of gifts which would come, and, indeed, have been promised, provided a receptacle should be offered them. The danger of fire to the present building is great, and the building itself is totally inadequate for the purpose of teaching. In the opinion of the undersigned, a new building, on a new site, is absolutely necessary, to enable the school to continue and enlarge its important work, and for this purpose the sum of two hundred thousand dollars should be raised. The community is earnestly requested to aid in this undertaking.

"Contributions may be sent to George Higginson, treasurer, 40 State Street."

As we have already said, the movement is going on in the most satisfactory manner, the community is responding nobly to the appeal, and there is no reason to doubt the success of the undertaking. To attain this as soon as possible, we would urge all members of the profession to lend their aid and to coöperate with the committee. We hope that the graduates of the school, both in Boston and elsewhere, will remember their Alma Mater, and, in proportion to their means and influence, give her the assistance which shall open to her even a higher career than that of the past.

A long step forward was taken last week in behalf of the public health of Boston. A communication was received by the Aldermen from the Committee on Sewers, calling attention to the danger to health in certain parts of the city, caused by furnishing a copious supply of aqueduct water before any provision is made for the equally copious waste and sewage produced in consequence. The soil around dwelling-houses ordinarily absorbs the sewage of the inmates when the water used is pumped from wells, but when the supply comes from the public water-works, the primitive methods of drainage into back yards will no longer avail, and dangerous nuisances result. The only reasonable course to pursue is that pointed out in the Committee's communication, namely, to put the sewers down before the water-pipes are laid. Such a course may savor of hardship to many suburban residents who have a prospect of years of waiting before the proper street-drains are laid in the thinly settled sections; but we believe it would be altogether the best policy to make the rule a fixed and unalterable one—that the sewers shall go before the service-pipes. The

Board of Health is well aware of the very dangerous conditions which have arisen in consequence of this indiscriminate supply of Cochituate water to houses upon undrained territory; they have scores of nuisances reported to them, in which they see abatement to be impracticable because of the blind way in which matters have been administered with regard to the relations of sewage and water. It has been observed by medical men in Dorchester that typhoid fever was almost unheard of before annexation, but that since the ground was disturbed for laying the Cochituate water-pipes, an unaccountable number of cases have developed; the water-supply was rapidly pushed forward as a deserved concession for the increased taxation to which the newly annexed territory was subjected, while the sewers await the uncertain chances of the future, the willingness of landholders to pay the expenses and the alacrity of the city departments in doing the work.

This is a matter to be seriously considered, not only in Boston, but in every community where the water-supply is in common by means of aqueducts. Many of the cities and larger towns of this State have recently shown a commendable enterprise in introducing to their inhabitants an abundant gift of pure water, and so far they have done much to promote the public health; but the gift will carry fatal consequences with it unless coincidently the most liberal policy with regard to drainage is carried out. We wish the matter might be compassed by statute, compelling the establishment of efficient drainage as an antecedent condition to the taking of water from a common source of supply. And we wish, also, that the various departments of public service in every city were less at loggerheads in promoting the public good.

The Antiseptic Properties of Salicylic Acid.—This acid can be readily composed from carbolic acid and carbonic acid; and, on heating above the boiling point, it is decomposed into these substances. Professors Kolbe and Thiersch have made experiments concerning its power to oppose processes of fermentation and putrefaction, and to prove a good antiseptic.

To ascertain how salicylic acid acted on ferments, some amygdalin was dissolved in water, a small quantity of the acid was then mixed with the solution and an emulsion of sweet almonds added. In a quarter of an hour, by which time a second mixture of almond emulsion and amygdalin without the acid smelt strongly of bitter almond oil, the mixture containing the acid had not the least trace of such a smell.

Mustard-seed powder, which, in luke-warm water, soon gives a strong smell of mustard oil, gives no such smell if a very little salicylic acid be previously mixed with it.

If a solution of grape sugar be mixed with a little salycilic acid (a thousandth part at the most), yeast has afterwards no action, and a sugar solution already in fermentation ceases to ferment when a small quantity of the acid is added. A thousandth of salycilic acid added to beer suffices to preserve it from injury through fungus growth.

Fresh and pure cow's milk, with 0.4 per cent. of salycilic acid added, and left in an open vessel, at a temperature of 64.4° Fahr., was thirty-six hours

later in curding than an equal quantity of the same milk beside it, which was without the acid. The action of a little acid delays the souring and coagulation still longer. The milk continues to taste well; the taste of the small amount of acid is not perceptible.

Fresh urine is kept from decomposition by the addition of a small quantity of salycilic acid.

Fresh meat rubbed with the acid will keep for weeks in the air.

Prof. Thiersch has made some experiments in the Leipzic Hospital as to the antiseptic action of salicylic acid, and its use in surgery. He says that when strewn (either by itself or mixed with starch) on contused wounds not yet cleansed, and on scurfy, gangrenous surfaces, salicylic acid destroys for a long time the putrid odor without any inflammatory action of importance. In solution of one part of the acid, three parts of phosphate of soda, and fifty parts of water, it favors the coating over of granulation surfaces. In its application to fresh wounds, Dr. Thiersch is of opinion that salicylic acid has all the advantages of carbolic acid without its inconveniences.—*The London Medical Record*, Sept. 23, 1874.

In the *Berliner Klinischer Wochenschrift*, No. 15, 1872, appeared an article by Prof. Dr. Beneke, of Marburg, "On a substitute for Animal Food for Convalescents, in various Diseases of the Stomach and Intestinal Canal, and for Poor Patients." H. Hartenstein was induced by the above article, and following the suggestions therein contained, to prepare for sale, under the name of "Leguminose," a powder for making soup, composed of a mixture of leguminous and cereal meal.

In an article in the *Berliner Klinischer Wochenscrift*, 1874, No. 22, Prof. Beneke expresses approval of the Leguminose as practically fulfilling every indication for which it is intended. It has been established beyond a doubt, by careful chemical analysis, that meals of all kinds contain a large amount of nourishing matter, pure leguminous meal being not far behind beef in this respect. Being freed from any shreds of cellulose and reduced to the very finest state of subdivision, this preparation has been made of extremely easy digestion. In addition to its highly nutrient properties and easy digestibility, its great cheapness should not be left unmentioned, the cost being only 15 groschen (34 cents) per pound, which renders it very useful as a diet for the poorer classes. By the admixture of cereal meal, also very finely divided, the proportion of nitrogenous to non-nitrogenous matter is made to vary, in the four different mixtures now in the market, standing respectively as 1:2, 3; 1:3, 3; 1:3, 9; 1:4, 8, thus being equivalent, in order, to the proportions found in beef, milk, breast-milk and the mixed food of adults. It is shown, by most careful analysis, that the different kinds of meal contain 10 to 12·7 per cent. water, whereas beef contains nearly 75 per cent., and cow's milk 86 per cent. One pound of fine meal contains, therefore, three and one half times more solid constituents than meat and more than seven times as much as cow's milk.

The method of preparing the soup for use is to stir slowly a heaping tablespoonful of the powder in a soup-plate of water, and then boil thoroughly for half an hour and add salt. The taste is said to be agreeable when thus carefully prepared, though should any taste of the raw peas or lentils remain behind, a little Liebig's extract of beef can be added. When this disagreeable taste cannot be got rid of, it is suggested by Dr. Beneke that the quality of water with which the soup was made may have something to do with it, and that if it is very hard a little soda should be added.

As the percentage of fat in these meals is small, the non-nitrogenous elements being mainly represented by amylum, it is recommended, when fat is particularly indicated, as in atrophied children, consumptives and convalescents, to add to the prepared soup one to two teaspoonfuls of cream. When, for instance, the proportion of nitrogenous to non-nitrogenous matter desired is 1:3, 3, Dr. Beneke employs mixture 1 (1:2, 3), adding the cream as above.

With regard to the objection, which naturally suggests itself, that leguminous articles of diet cause flatulency, no mention is made by those who have used it of any such trouble having been produced, and it probably only occurs when the peas or beans are prepared in the ordinary way.

After the second year, the system requires a small quantity of vegetable acid or of salts containing it. As leguminose contains none, when this is used exclusively, the deficiency should be made up by giving lemonade, compote, fruit jelly or wine containing it. When the stimulating effect of animal food is indicated, this can be obtained by the addition of Liebig's extract of beef, rich in creatinine and the salts of potash.

Dr. Beneke, in his endorsement of the merits of the above preparation, is supported by equally favorable reports from a large number of physicians of respectable standing in different parts of Germany who have used it as an article of diet for patients with impaired organs of digestion, for infants deprived of the breast, where cow's milk is not well tolerated in any form, for atrophied and scrofulous children, for convalescents from typhoid fever, and for consumptives; also during the acute stages of disease, as of acute rheumatism and of typhoid fever.

Should it be made easily obtainable in this country, at a relatively cheap price, the leguminose would certainly merit a trial at the hands of the profession, with prospects of proving a very superior article of diet for infants and for the sick chamber.

Medical Science (?) in Spain.—A correspondent, writing from Madrid, gives an account of a few of his patients, and the course of treatment to which they had been subjected prior to having consulted him. He says that one of the prescribers of the nastinesses described is an ex-Court physician, and that another fills a professorial chair.

Case I.—D. F. L., aged 35, having chronic, articular rheumatism, was ordered nine days' baths of archena; after that, to observe the "Cuarentena" (or forty days); to take no medicine whatever. Being worse than ever at the end of that period, he was ordered friction all over the body with a slush composed of equal parts of smashed earth-worms, rancid oil, and putrid mule's dung, to be applied assiduously for the mysterious nine days, night and morning.

Case II.—Senora B. de L., a "noble lady," aged 32, recently confined, had a small abscess of the left breast. She was attended by an ex-Court physician, who, when he had exhausted all his remedial skill, ordered a poultice three times a day of white pigeon's dung, saying that if that did not cure her, nothing else would.

Case III.—Dona Francena A., aged 23, had been treated for dyspepsia with amenorrhœa for ten months. Her last prescription was "nine days'" poultices of fresh human excrement. She could only endure this disgusting barbarism two days.

Case IV.—Eulogia G., a servant-girl, aged 19, had chronic diarrhœa, and was ordered to take a tumblerful of child's urine every morning, fasting, for nine days. She could take such a dose only three days.

Case V.—Pablo Insari, aged 30, plasterer, had had six months' doctoring for heart-disease following rheumatism. The last prescription was a newly killed pigeon split open down the middle and applied over the left chest for "nine days," and to go to work.

Case VI.—Senor Don M. H., mine-proprietor, aged 39, had cardiac dropsy. His last prescription was, a sheep to be killed daily, and the skin, with the wool on, to be wrapped round the body tightly.

Case VII. is, perhaps, the strangest and most ridiculous of all. Miss S. A., an American lady, sent for me, and said, "Doctor, I've got the gripes for the last two or three days; and yesterday, feeling no better, according to a notion in my country (Pittsburgh), I took eight or ten black pepper-corns, wrapped them up in a piece of your *London Times* (they must be swallowed in printed paper). I guess that they have stuck somewhere, and I feel awful bad; and I want you to give me something right off to get me rid of them

pepper-corns and your English paper. Had I only got the *New York Herald*, they would have gone slick down." A small dose of castor-oil shortly set her right.

By way of confirmatory evidence, our correspondent gives the following literal translation of a paragraph in the *Correspondencia* journal:—

"In the slaughter-house of Madrid, which is under Government supervision, there is being committed a repugnant abuse, which, for the sake of health and public decency, and at the request of many persons, we denounce to the Senor Alcalde (Chief Civil Magistrate) of this city. In the above-named establishment, they consent or permit that the sick, with arms and legs at times full of ulcers and wounds, to lie inside the carcases of animals while hardly yet dead. Apart from the horror and disgust that this produces in the persons that witness these things, it might produce disastrous effects on the public health; and we doubt not that such scandalous acts will have an efficacious and prompt correction. We shall be on the look-out about this matter."—*The British Medical Journal.*

Correspondence.

Cause of Typhoid Fever.

Messrs. Editors,—In the Journal for October 15th, you quoted Dr. E. M. Snow's views upon this topic, which, if not ignoring "foul emanations from sink drains, cess-pools and privy-vaults" as an active agent in producing typhoid fever, places them in a somewhat trivial light. A few facts, already well known and published will, I think, give your readers a different opinion (at least in part) from Dr. Snow's. In the Journals for Sept. 14th, 21st and 28th, 1865, may be found the elaborate "Report upon the Epidemic occurring at Maplewood Young Ladies' Seminary, Pittsfield, Mass.. in July and August, 1864." The facts in this notable case are most ably set forth, by Drs. Palmer, Earl and Lord, the investigating committee, and no one can doubt but that *fifty-six* (56) *persons*, out of *one hundred and twelve* (112) who resided in the Institute, had typhoid fever as a direct result of foul emanations from neglected cess-pools and privy vaults; of the fifty-six, sixteen died. Ten or twelve others were ill, but their cases are not reported as typhoid fever, although the history strongly points that way. All interested in this important subject should recur to the Journals mentioned above, or procure the report in pamphlet form. In the Journal for Feb. 4th, 1869, may be found a discussion upon the causes of typhoid fever by members of the Boston Society for Medical Improvement. A number of instances corroborating the idea that this disease does arise from foul exhalations are cited. Some doubted, because a leaky drain was not always discovered; but, "Dr. George Derby thought we were not justified in the conclusions that no local cause existed, because none was found at the first search; a more careful examination frequently revealed an accumulation of foul material that had previously escaped notice." The case of the Clifton House was referred to. Of more recent date is the sickness that took place at Mt. Desert, Maine. Dr. Snow must have heard of the cases of typhoid fever, and their ascertained cause, that occurred in an institution of learning not many miles from his own residence. It was the "Maplewood Fever" over again; there being, however, only about a third as many sick ones. Two years since, I had five cases of typhoid fever in one house at the same time. There were neither rotten apples nor other vegetables about the premises, but there *was* a most filthy vault, the emanations from which these persons were compelled to inhale. Near, in another dwelling, were six more cases under my care. Six cases were also under treatment by other physicians, a total of seventeen cases within five hundred feet of each other. Decayed vegetable matter was not a prominent cause in any of these; foul emanations, clearly, were the cause in the house first invaded by the disease. That decayed vegetables were also a cause, I do not doubt. In many instances of

local outbreaks of typhoid fever, we cannot fix upon a very satisfactory cause. From Nov. 1st, 1873, to May 1st, 1874, I had five cases in one family, no two ill at the same time. A most careful search revealed no local cause. It is likely there are causes we cannot understand. Dr. Snow asserts that typhoid fever is more frequent in the country than in the city. How does he know this? Furthermore, if this be correct, does it prove his premises as to causation? We think not, for, according to our experience, the vilest "back-houses," and the most abominable cess-pools are to be found in the country and villages, such as are not tolerated for a moment in cities.

Pawtucket, R. I., Oct. 17, 1874. J. O. WHITNEY.

MESSRS. EDITORS,—The following letter, from a gentleman temporarily residing in Paris, may be considered of sufficient interest to have a place in your JOURNAL. The case seems remarkable in two respects:—1st, on account of the diagnosis of helminthia, and, 2d, in consideration of the treatment, which was followed by a cessation of the convulsions.

Brookline, Oct. 21, 1874. S. SALISBURY.

"On Sunday afternoon, about 1.30, whilst at dinner, our dear H.* was suddenly seized with a convulsion of the most alarming and violent nature, becoming utterly rigid, eyes fixed, pupils much dilated, teeth clinched, accompanied with the most distressing gasping for breath.

"We immediately sent for a physician, and, in the meantime, put him into a warm bath, which seemed to have no effect whatever; and he could not be made to swallow anything. After the delay of twenty minutes at least, one of several doctors who had been sent for arrived, and was soon followed by two others, all of whom began the attempt to recover to life that which seemed beyond all human aid. Artificial respiration having been carried on for some time, as well as hot baths and throwing cold water in the face, one of the physicians suggested a subcutaneous injection of morphine, which seemed to relieve the violence of the spasms.

Soon after this, Sir John Cormack, the physician we had previously employed, having arrived, I turned over to him the management of the case, in consultation with the others. The case being still most desperate, and requiring efficient remedies, it was decided to again inject morphine (instruments being at hand, as a last resort, to insert a tube into the trachea). The second injection of morphine seemed very soon to calm him, and he became quite thoroughly narcotized, after having been in most severe convulsions for two hours. He fell into a gentle sleep, which lasted two hours, and then awoke perfectly clear in his mind, recognizing all of us, and from that moment has been steadily improving; and, save more or less excitement and restlessness, is quite himself again.

"The physicians who have seen this case consider it a most remarkable one in many respects, although they have known of similar ones. They are of unanimous opinion that there is no disease of the brain, heart or other vital organ, but it is to be attributed to a *worm*. The doctor has him under treatment for that disease.

"*Later.*—I am thankful to say that H. has passed a large worm and subsequently a smaller one, and is doing well.

"*Paris, September* 22, 1874.

HOSPITAL APPOINTMENTS.

MESSRS. EDITORS,—Not being aware that there are any vacancies to be filled in either of the hospitals in this city, it surely cannot be considered anything wrong for an outsider to say a word upon this subject. Some of us in the profession have been called upon to testify to the good standing and professional ability of one or another medical man. It is rather hard for some persons to say "no" to such an application, or to any other. One says it with the feeling that the applicant looks upon him afterwards as a personal

* Aged seven years.

enemy. The committee who have in charge nominations to fill vacancies are the individuals who should ask for an account of qualifications, and for nominations. Personal friendship, on the part of Trustees, will, of course, enter into every election for every office; and where an institution is carried on under the direction of Trustees elected by a political body, and frequently changed, political, as well as personal, friendship becomes, sometimes, an element. It is for the advantage of a hospital to have its government a permanency. This is desirable on every account. Men become interested in an institution to which they are long attached. They learn its wants. They become acquainted with its officers, and their ways of administration. They become qualified to advise and direct in its matters of finance. Although they may arrive at the age of fogeyism, there are always young ones enough to counterbalance too rigid economy and to prevent elections of physicians and surgeons too old for work.

This subject of appointments has long been in the mind of the writer, who feels entitled to speak upon the subject, having himself held a hospital office, though he never asked for one. It seems to him that the following plan would be a good one. When a vacancy is about to occur, let the fact be made known by advertisement that any one *may* apply for the office who wishes, and let him send in as many names of medical men as references as he may choose, but no testimonials from his referees. The committee of nomination should be the party to seek information concerning ability, qualifications and character; and although it would be as well for an applicant to show his person, any solicitation from political acquaintances, any entreaties from family and friendly bores, should be done away with. A referee could then, without the slightest inconvenience, express his opinion concerning an applicant for a position, and his comparative judgment between two or more applicants.

Men who ask you for certificates of qualification are often very much vexed when they discover that, either before or after writing them, you have also written the same for others. This is truly a piece of self-sufficiency. That one has said that Dr. A. is qualified to do a certain work, is only evidence that he knows or thinks he knows it. It is not evidence that he has not the same knowledge of the ability of Dr. X. or of Dr. Z. His giving a certificate to that effect does not make him a partisan of Dr. A., and it would be as well, though some do not like to do so, to inform one applicant for a certificate that you are willing to furnish it, but that you have already done the same for another.

Some of the readers of the JOURNAL might prefer the system by *concours*. That will do well in some places. It has been adopted to a certain extent in one of the city institutions. On a more extended scale, we do not believe it would be either possible or useful in this country. ***

Obituary.

SEWALL G. BURNAP.

AT the annual meeting of the Thurber Medical Association, held this day, the following resolutions were passed:—

Whereas, Our brother, Sewall G. Burnap, of Holliston, has been removed from the scene of his long and useful labors on earth, and, as we trust, to a happy and everlasting home in the life which succeeds this, therefore

Resolved, That, while we bear our willing testimony to his character as a man and physician and deplore his absence from this the annual meeting of our Association, we tender to his wife and other relatives the sincere expression of our condolence and sympathy in their affliction, and commend them to the love of that Being who doeth all things well.

Resolved, that a copy of these resolutions be forwarded to the family of the deceased, the Boston Medical and Surgical Journal, and the *Milford Journal*. J. ALLEN FAY, M.D., *Secretary*.

Milford, Mass., October 22, 1874.

Medical Miscellany.

BIS DAT QUI CITO DAT.

A SCHOOL of Dental Surgery is about to be formed in Vienna.

THE next Annual Meeting of the Association of German Naturalists and Physicians will be held at Gratz in Bohemia.

KIN-SI I-SETZU, or *Modern Medical News*, is the title of a new bi-monthly medical journal, published in the Japanese language at Yedo, by the imperial government. It has a guaranteed circulation of one thousand copies.

MR. GEORGE R. LABAN, 111 years old, as distinctly shown by the records of his christening, attended the State fair at Easton, Pa., last week. The old man is talkative and intelligent, has a fine chest, shows little emaciation, uses tobacco, and can do considerable work without fatigue.—*Ex.*

CHOLERA NOT INFLUENCED BY TEMPERATURE. — The cholera raged undiminished in Moscow in 1830 while the temperature was — 4° F., and at Orenburg at a temperature of — 24° F. In Nowgorod, in 1821, typhoid fever broke out at a temperature of — 35° F., while it appeared at Edinburgh in 1817, during a period of exceptionally hot weather. — *Ziemssen's Handbuch.*

DISLOCATION FORWARDS OF THE STYLOID END OF THE ULNA.—An instance of this rare displacement is reported by Mr. T. E. Purdom in the *Edinburgh Medical Journal* (Oct. 1874), produced by having the hand and forearm drawn into a planing machine. "The hand and wrist were much twisted. On examination, the limb had a curious appearance, there being a hollow on the ulnar side posteriorly, while in front, just above the wrist, a hard swelling was felt and diagnosticated to be the styloid end of the ulna, displaced forwards."

THE MAINE GENERAL HOSPITAL, at Portland, was dedicated on October 21st. Hon. J. B. Brown, President of the corporation, presided, and many distinguished people of the State were present, including the leading medical men. Gov. Dingley made an able dedicatory address, sketching its history, congratulating the people upon its completion and declaring its benefits to the suffering and to the profession. He was followed by President Chamberlain, of Bowdoin College, and others. A large concourse was present, who inspected the building after the ceremonies. Dr. Charles O. Hunt is to be the resident physician.

ANOINTING WITH COCOA BUTTER IN SCARLET FEVER.—Upon the recommendation of Schneeman, the annointing of the body with fat has been extensively practised in Germany during the past ten years, with the view of lowering the temperature, and hastening the desquamation. Dr. Bayles suggests, in this connection, the employment of cocoa butter, as producing a more cooling and refreshing effect upon the patient, and emitting a more agreeable odor in the sick chamber. This agent, on account of its solid consistence, is more readily applied than either fat or oil, and is more easily absorbed by the skin. Furthermore it is thought to afford the system a certain amount of nourishment.

In severe fevers, the entire surface of the body should be rubbed with this substance every hour, or at least once every four hours. Its application is also recommended in typhoid fever, in cases where the patients manifest a dread of water, or where the application of water is impossible; likewise in other inflammatory diseases, especially the severer forms of inflammatory rheumatism, and in tuberculosis. *Giornale Veneto di scienze Med., Ser.* 3, *Tom.* 21, 1874.—*Allg. Med. Central-Zeitung*, 16th Sept. 1874.

INCISION VERSUS EXCISION OF THE KNEE IN CHILDREN.—At the last annual meeting of the British Medical Association, Dr. Edward Lund argued that, in a large proportion of cases under twelve to fifteen years of age, the incision was the better operation. The mode of procedure was peculiar, inasmuch as he only opened the joint by an incision in its external side, and through this, by means of a curved cutting hooked knife, which was passed into the joint, or so much of the natural cavity as remained, all adhesions were broken down, or cut through, so as to permit the bones to be replaced in a straight line. It was rarely possible to do this immediately, on account of the construction of the tendons; but several contrivances were shown by which, by the use of elastic India-rubber bands, long-continued slight pressure produced excellent results, and firm, straight anchylosis of the knee was the result. It was, however, one essential condition of the operation that it should be conducted entirely upon Mr. Lister's system of antiseptic dressing, for without these precautions it might, in many cases, prove a hazardous proceeding.—*The British Medical Journal.*

"NOTHING NEW UNDER THE SUN.—Doctor Mordtmann, of Constantinople, publishes, in the *Gazette Médicale de l'Orient*, some curious details he has discovered in some old Oriental chronicles, tending to show that the Siamese twins, as well as the sisters Milly and Christine, had prototypes in former times. According to these Byzantine chronicles, there came from Armenia to Constantinople in the year 744, a monster, consisting of two children born of one mother. These children were attached to one another at the epigastrium, so that they faced each other, the other parts of their bodies being regularly formed. During their sojourn in the Byzantine capital numbers flocked to see this monstrosity; but as the twins were superstitiously regarded by the ecclesiastical authorities as being of bad augury, they were expelled the city, to return again when a comparatively enlightened emperor ascended the throne of the Cæsars. One of these twins died, and one of the most skilful physicians endeavored to divide the survivor from the corpse at the point of juncture, in the hope of saving his life. The operation, however, only served to prolong its duration for three days.—*The London Medical Record.*

NOTES AND QUERIES.

THE DOCTORS (OF DIVINITY) DISAGREE.—The Bishop of Lincoln says that cremation destroys all hope of a "resurrection of the body." The Bishop of Manchester finds abundant reason for believing the contrary. Meanwhile, until this important matter is settled, let us be buried in the old fashioned way and enjoy the prospect of having our corruptible part washed away into neighboring streamlets and wells. ***

MORTALITY IN MASSACHUSETTS.—*Deaths in seventeen Cities and Towns for the week ending October* 17, 1874.

Boston, 133; Worcester, 18; Lowell, 24; Milford, 3; Chelsea, 4; Cambridge, 23; Salem, 15; Lawrence, 16; Springfield, 9; Lynn, 7; Gloucester, 3; Fitchburg, 1; Newburyport, 5; Somerville, 15; Fall River, 16; Haverhill, 7; Holyoke, 9. Total, 308.

Prevalent Diseases.—Consumption, 48; cholera infantum, 27; scarlet fever, 17; typhoid fever, 17; pneumonia, 15; diarrhœa and dysentery, 10.

Boston reports one death from cerebro-spinal meningitis.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 24, 140. Males, 71; females, 69. Accident, 5; apoplexy, 1; inflammation of the bowels, 2; disease of the bladder, 1; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 4; burned, 3; cyanosis, 1; cancer, 2; cholera infantum, 6; cholera morbus, 1; consumption, 30; convulsions, 3; debility, 3; diarrhœa, 6; dropsy of the brain, 3; dysentery, 1; diphtheria, 1; diabetes, 1; exhaustion, 1; intermittent fever, 1; scarlet fever, 4; typhoid fever, 8; gastritis, 1; gastric ulcer, 1; disease of the heart, 4; disease of the kidneys, 1; congestion of the lungs, 3; inflammation of the lungs, 3; laryngitis, 1; marasmus, 11; old age, 1; paralysis, 2; premature birth, 7; peritonitis, 2; puerperal disease, 4; pyæmia, 1; quinsy, 2; senile dementia, 1; tabes mesenterica, 1; tetanus, 1; tumor, 1.

Under 5 years of age, 58; between 5 and 20 years, 12; between 20 and 40 years, 31; between 40 and 60 years, 22; over 60 years, 17. Born in the United States, 108; Ireland, 22; other places, 10.

THE

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Original Communications.

AMAUROSIS AND AMBLYOPIA TREATED BY THE SUBCUTANEOUS INJECTION OF STRYCHNINE.

By HASKET DERBY, M.D., of Boston.

THE subcutaneous injection of strychnine, for the relief of certain amaurotic and amblyopic affections, is one of the most important modern contributions to ophthalmic therapeutics.

With the introduction of the ophthalmoscope, the use of the term "amaurosis" became seriously restricted. Formerly applied to nearly every failure of vision, unconnected with a visible cause, it gave way to a scientific nomenclature as soon as all the portions of the eye-ball lying behind the crystalline could be seen and their changes realized. Affections of the optic nerve, choroid and retina began to be diagnosticated and classified.

There still, however, remained a certain class of cases where failing vision occurred unaccompanied by any tangible organic change. Such affections, as well as those diseases of the optic nerve, characterized by whitening and atrophy, the whole coming under the head of amblyopia and amaurosis, long formed the opprobrium of ophthalmic science. Operative treatment and local applications were here, of course, out of place, while general treatment was, in many cases, of but slight value.

The discovery that strychnine, particularly when used in the shape of local injections, would exert a marked influence in many such cases, was hailed, at first, with a measure of incredulity. So hopeless had these affections been long considered, that a remedy which promised a lasting improvement, and which often exerted an almost instant and perceptible effect, was a long time in making its way into general confidence. So extravagant, too, were some of the claims at first set up for it, so various the diseases to which it was said to be applicable, and so few the reported failures, that sober practitioners, who used the remedy, at first without success, were often discouraged from subsequent trials.

My own experience was at first unfavorable. In case after case, I followed the indications and directions laid down by the advocates of the new remedy for its employment, without success and without even perceptible effect. The first case in which I was able to see an evident good effect was the first of those here reported. Encouraged thus to follow up the method, I have ended by giving it my fullest confidence, and by employing it very generally in these affections. It is not a panacea, it is not a specific. Those who look for instant action, or strikingly brilliant results will, in a large number of instances, meet

with disappointment. But it will often succeed where other remedies fail, and often materially accelerate a cure in cases where all, save the most general remedies, were formerly deemed useless.

Within the limits of a brief article, and in a journal intended for the entire profession, it would be inexpedient to discuss the effect of strychnine on the normal eye, as demonstrated by a careful series of physiological experiments. Hippel has accomplished this task in his work on "The Effect of Strychnine on the Normal and Diseased Eye." And Nagel, in the "Treatment of Amblyopia and Amaurosis by Strychnine," has stated at length the cases in which he found its application of value. I would here simply call attention to one class of cases, in which the use of this remedy has seemed to me particularly indicated, namely, those designated under the name of "amblyopia ex abusu."

It has, for some time, been known that the long-continued, excessive use of alcohol or tobacco sometimes gives rise to a peculiar affection of vision. Its acuteness slowly and regularly diminishes. There is no contraction of the visual field, no break in its continuity, but distant and near objects grow gradually indistinct, the patient often using the expression that everything about him is enveloped in a gradually thickening mist. Glasses are found of no avail for distant objects, though convex lenses for a time sustain the failing powers of the eye for the near. But reading and writing finally become impossible. Ultimately, if the disease progresses, the patient is unable to guide himself about, and blindness may ensue. During all this time, there is no change in the external appearance of the eye. The ophthalmoscope alone reveals a change; at first, a degree of congestion of the optic nerve; towards the end, an atrophic degeneration of the same.

This is the true "amblyopia potatorum," or, more properly, alcohol not being its only cause, "amblyopia ex abusu." I have had the curiosity to look through my own records, in order to ascertain the comparative frequency of its occurrence. It occurred 52 times among 6,602 patients, about .8 per cent. In hospital practice, I am satisfied it occurs more frequently. Of my 52 cases, 16 proceeded from the abuse of tobacco alone, 5 from that of alcohol, 31 from both combined.

Those who have treated these cases previous to the introduction of strychnine injections will all agree as to the slowness with which improvement takes place. It is true that rigid abstinence from the use of the exciting cause, and the employment of tonics will generally arrest the progress of the affection. But gain is excessively slow, frequently, for months, almost imperceptible.

Case I.—January 9, 1873, I first saw Mr. B., a tall, athletic man, who had always enjoyed excellent health. For a year or more, his vision had steadily decreased, a mist seeming to constantly surround him, and continually thicken. For some time past, reading and writing had had to be given up. Upon inquiring into his habits, I found that for years he had averaged, at least, three drinks of spirits and eight cigars a day.

The whole case presented the usual symptoms of amblyopia ex abusu. The optic nerve had passed the stage of congestion, but did not, as yet, show any marked whitening. Vessels very slightly diminished in calibre. Vision right $\frac{3}{200}$; left $\frac{6}{200}$.

[These fractions are readily appreciated by bearing in mind the fact

that the figures *below* the line denote the number of feet at which an average normal eye would make out a line of print, selected as the test-object, while the figures *above* the line denote the distance at which this line is made out in the present case. The fraction thus formed may be considered as expressing the vision of the patient. When the numerator and denominator are the same, the vision is normal.]

Entire abstinence from alcohol and tobacco was, of course, the first thing insisted on. A tonic was given, and blood taken from the temples by means of the Heurteloup leech. January 15th, there had been a little gain. Vision (V) right $\frac{11}{200}$; left $\frac{7}{200}$. One-fortieth of a grain of nitrate of strychnia was injected in the left temple. Very little improvement followed. The use of the Heurteloup was continued, and another strychnine injection subsequently made, but so little improvement followed that this treatment was given up.

Feb. 20th.—Patient was continuing rigid abstinence, and taking the elixir of the phosphates of iron, quinine and strychnine. V. right $\frac{20}{200}$; left $\frac{13}{200}$, no improvement having occurred for some weeks. The nerves looked decidedly whiter, and the vessels thinner. Mr. B. was haggard, had lost flesh and spirits, seemed nervous and distrait. He was oppressed in walking by a fear of falling. There was a tendency to sleep a large portion of the time. His hearing was less acute, and his memory impaired. April 5th, no change in health or vision. Atrophy of optic nerve more apparent. As a last resort, a thorough course of strychnine injections was proposed.

His vision was now much what it had been in February; right $\frac{20}{200}$; left $\frac{16}{200}$. Below are given the dates and amount of the strychnine injections, as also the improvement in vision, which at once began to occur.

Injections.	Vision.
April 7th, gr. $\frac{1}{40}$.	
" 9th, gr. $\frac{1}{20}$.	
" 12th, gr. $\frac{3}{40}$.	April 12th, right $\frac{20}{200}$; left $\frac{20}{200}$.
" 14th, gr. $\frac{1}{12}$.	
" 21st, gr. $\frac{3}{40}$.	
" 23d, gr. $\frac{1}{10}$.	" 23d, right $\frac{20}{70}$; left $\frac{20}{100}$.
" 26th gr. $\frac{1}{8}$.	
May 3d, gr. $\frac{1}{8}$.	
" 9th, gr. $\frac{1}{8}$.	
" 20th, gr. $\frac{1}{6}$.	May 20th, right $\frac{20}{50}$; left $\frac{20}{70}$.
" 29th, gr. $\frac{7}{40}$.	
June 19th, gr. $\frac{1}{4}$.	June 19th (had drank and smoked), right $\frac{20}{70}$; left $\frac{20}{100}$.
" 26th, gr. $\frac{1}{4}$.	June 26th, right $\frac{20}{30}$; left $\frac{20}{70}$.

The direct connection between the injections and the improvement is here most manifest. The right eye, it will be seen, was restored to very nearly normal vision. The general health had improved, and the patient resumed his business, once more able to read and write with ease.

Case II.—Mr. R. aged 60, formerly a sea-captain, a thin, wiry man,

who had always enjoyed excellent health, had been for many years, "all his life," an excessive smoker. His average, as far back as he could remember, was about fifteen pipes a day. For three months, his vision had been failing, and he was now unable to read or keep his accounts.

Jan. 1, 1874.—There was deep congestion of each optic nerve. Vision of each eye, $\frac{20}{100}$. Visual fields normal.

Tobacco was ordered to be omitted, and the elixir of the phosphates of iron, quinine and strychnine given internally. At the end of a fortnight, there had been no change in vision. Injections of nitrate of strychnia were now made in either temple, alternately, as follows:—

Injections.	Vision.
Jan. 15th, gr. $\frac{1}{40}$.	
" 17th, gr. $\frac{1}{20}$.	Jan. 17th, $\frac{20}{70}$ each eye.
" 20th, gr. $\frac{3}{40}$.	" 20th, $\frac{20}{50}$ " "
" 23d, gr. $\frac{1}{12}$.	
" 31st, gr. $\frac{3}{40}$.	" 31st, $\frac{20}{40}$ " "
Feb. 2d, gr. $\frac{1}{10}$.	
" 6th, gr. $\frac{1}{8}$.	Feb. 6th, $\frac{20}{30}$ " "
" 13th, gr. $\frac{1}{8}$.	
" 18th, gr. $\frac{1}{8}$.	" 26th, $\frac{20}{20}$ " "

The effect of the injections was almost immediate. Thus the patient would speak of the street-signs as having "brightened up" when he left the office. The rapid progress made will be especially noted.

The next case is a well-marked instance of what used to be called "amaurosis."

Case III.—Mrs. C., aged 34, had always enjoyed good sight and excellent health. Three years before coming to me, she had passed a season of great anxiety and exceeding fatigue, having lost several members of her family. Soon afterwards, she began to be subject to intermittent obscurations of vision, "something rising before her and leaving a blur that would last several minutes." This symptom occurred more and more frequently, and was accompanied by intense pain across forehead, and pain like a needle through eyes. One day, the vision of the right eye suddenly became very imperfect, and the eye itself was the seat of much pain.

May 17, 1874.—Eyes externally normal. Right, *sees moving hand (very dimly) in one foot.* Nerve whitish, vessels—especially arteries—attenuated. Left, vision $\frac{20}{100}$. Visual field much contracted in every direction. Has much difficulty in getting about at night. Left optic nerve whitish, vessels slightly diminished in calibre.

A powerful tonic was given, and strychnine injections at once commenced.

Injections.	Vision.
May 19th, gr. $\frac{1}{40}$.	
" 21st, gr. $\frac{1}{20}$.	
" 27th, gr. $\frac{3}{40}$.	
" 29th, gr. $\frac{1}{12}$.	May 29th, no change.
June 1st, gr. $\frac{3}{40}$.	
" 3d, gr. $\frac{1}{10}$.	June 3d, right $\frac{3}{200}$; left $\frac{20}{70}$.

" 5th, gr. $\frac{1}{8}$.
" 9th, gr. $\frac{1}{8}$.
" 15th, gr. $\frac{1}{8}$. June 13th, right $\frac{20}{200}$; left $\frac{20}{70}$.
" 22d, gr. $\frac{1}{6}$. " 19th, right $\frac{20}{70}$; left $\frac{20}{50}$.
" 29th, gr. $\frac{7}{40}$. June 26th, vision of each eye $\frac{20}{60}$.
July 14th, gr. $\frac{1}{4}$. July 14th, " " " " $\frac{20}{50}$.

Sept. 22.—Vision of right $\frac{20}{50}$; field contracted in all directions. Left, vision $\frac{20}{40}$; field very slightly contracted. *Each optic nerve is less white, and the vessels are larger.*

THE TREATMENT OF PERTUSSIS BY INHALATION.

By J. Winthrop Spooner, M.D., of Hingham.

In the Journal dated April 20, 1871, appeared an article by John J. Caldwell, M.D., of Brooklyn, N. Y., entitled "A New and Successful Treatment of Pertussis." The treatment recommended was the following:—

℞. Fl. ext. belladonnæ, ♏ v. to x.;
Potass. bromid., ℈i.;
Ammon. bromid., ℈ij.;
Aquæ, ℥ij. M.

Inhale one tablespoonful in the ordinary steam atomizer.

Several successful cases were reported, but since that date I have seen no report of cases treated in that way.

Feeling that we have in this method of treatment a great addition to the therapeutics of a disease often distressing, and sometimes fatal in its results, I have been led to publish a few cases of my own treated in a similar manner. I am in the habit of using a tablespoonful of the above mixture and filling up the glass of the atomizer with water.

Case I.—April 1st. A boy of 14 has had the disease for two weeks. The cough has been severe and the whoop well marked. Vomits after nearly every meal. The next record is April 5th, which is as follows: Patient has been at the office daily and used the atomizer. His cough has been less since the first inhalation, and he has whooped but once. The vomiting has ceased, and there is present but a slight cough, which is not distressing.

Cases II. and III. were two children (brother and sister) aged 15 and 12. Well-marked symptoms of whooping cough had been present for two weeks. The same remedy was used for four days, under my supervision, with decided abatement of symptoms. As they were improving, I lent them a hand atomizer, which I afterwards understood they used only for a day or two. The cough lingered for several weeks in both cases, although the whoop was never well marked after the use of the atomizer. In fact, during the latter period, the disease seemed to be a simple bronchitis and nasal catarrh, the result of a series of colds, as the patients were very imprudent.

Case IV.—A child of 3 years had a cough, with febrile symptoms for ten days. Yesterday, for the first time, had a decided whoop. Vomited every meal to-day. Face is swollen, eyes congested, and, this morning, lids adhered from excessive secretion. The atomizer was used twice daily. Improvement commenced at once. From that

date there was no vomiting, the countenance resumed a natural appearance, and at the close of a week the whoop had ceased, and in less than a fortnight not the least trace of the disease was present.

Cases V., VI. and VII. were children of one family, aged eight, five and three years respectively. The disease had existed for about two weeks; the symptoms were mild, but sufficient for diagnosis. Treatment was commenced on June 27th. On June 30th, I saw them again, and there was a decided improvement. At the close of one week from the commencement of treatment they were well.

Case VIII. happened at the same time with the preceding three, and the history was similar.

Case IX.—A child of 2 years. I saw her first, July 20th. She whooped for the first time that day. On account of her age, there was difficulty in administering the remedy thoroughly, and perhaps it was on that account that for the first few days there was no perceptible improvement. However, the treatment was continued, and, by the 26th, the symptoms had much abated; and, by the 30th, the patient was well. A little syrup of squills and tolu was used in this case, as a palliative, in the first few days, and this is the only case in which any treatment but the inhalation was used.

Cases X. and XI. were a little girl of seven and her mother. With the former, the cough and whoop had been present for four weeks, and the mother had coughed for two weeks. The health of these patients was delicate, being predisposed to pulmonary disease, and a sister of the lady had died of phthisis, following pertussis, it was said. In both these cases, although the urgent symptoms were relieved, that is, the vomiting ceased and the cough and whoop became much less frequent under treatment, yet the disease went through its regular course in a mild form.

This, then, is the result of my treatment of pertussis by inhalation. When the disease is at all severe, I use the atomizer twice daily until the urgency of the symptoms is relieved, and then continue it once daily until the cough has entirely disappeared. In some cases, I have somewhat varied the proportion of the ingredients, but have made no essential departure from the formula given.

A CASE OF AUTUMNAL CATARRH SUCCESSFULLY TREATED BY GALVANISM.

By W. F. Hutchinson, M.D., of Providence, R. I.

It is probable that, before many months, the medical world will have the benefit of the carefully collated statistics, and valuable conclusions drawn from them, in a monograph upon Hay Fever, now in process of preparation by my friend Dr. George M. Beard, of New York, who is already so favorably known to the profession by his numerous published essays, as well as from his treatise upon Medical Electricity, now become standard. Facts have been obtained from more than one thousand doctors in all sections, and the mass of knowledge thus brought together cannot fail, properly arranged, to be of great value to the army of sneezing sufferers, who annually migrate mountainwards, to escape the annoyance and suffering entailed upon them by this particularly uncomfortable disease.

As a specialist in nerve diseases, my view of the pathology of hay fever would, perhaps, naturally be that of a neurosis, even were such view not borne out by facts of symptomatology; and now, I am happy to say, by results of treatment in a case which may be regarded as absolutely typical of the disease, since it is only by actual nerve nutrition that the remedy applied could have had its favorable effect. Whether the poison be a peculiar *materies morbi* in the blood, developing its nerve-irritant properties under the influence of season and the natural debility engendered by the heated term, or whether there be a cause in the nerve centres involving a degeneration of tissue, only aroused into activity by some peculiar stimulus, it is worthless further to discuss in a simple case report, only intended to call attention to a more successful result of treatment than is common in this disease. For, so far as I am aware, there have been very few cases recorded, where autumnal catarrh has been attacked and vanquished in mid career, and this without the administration of a single dose of any kind of medicine. In the commencement of treatment, I explained to my patient that I wished to make an experiment upon her case, which might, or might not, do her any good, but which could certainly do her no harm, as no medicine would be given, and the course pursued would be, in all regards, a sanitary one. She consented, and the result is as follows:—

Miss H. W., aged 38, brunette, height 5 feet 2 inches, and weighing 135 pounds, in vigorous health and easy circumstances, has been a sufferer from autumnal catarrh for twenty years. The onset is upon the 19th day of August, varying only two or three days each year, and the duration until the first severe frost. During all this period, there is no intermission, nor remission, change of climate having been, from family reasons, out of the question. In addition to the usual symptoms of the disease, in an aggravated form, she suffered from a severe pharyngitis, induced by continued sneezing. The most potent excitants are hay, green or dry, and certain flowers, others having no effect. She belongs to a family in which the neurotic temperament is strongly developed, her mother having repeatedly been under treatment for trigeminal neuralgia. Treatment was begun September 5th, by the method known as central galvanization, including the sympathetics. The battery current was derived from the Siemen and Halske series as arranged by the Galvano-Faradic Company, of New York, which, in my opinion, is the most reliable and complete of any battery made. Six cells only were employed—the negative pole at the nape of the neck, and the positive over the solar plexus. This position was maintained five minutes, then changed so as to direct a current from the vertex to the manubrium sterni, promenading the positive electrode over the trachea and bronchi for three minutes more. The sympathetic of each side was then intercalated from the superior cervical ganglion to the vertebra prominens for one minute, and the sitting terminated.

Immediately after each treatment, a marked remission in the symptoms occurred, and Miss W. expressed herself as much more comfortable than just before. These periods of comfort increased in length daily, until, after three weeks, during which time she was by no means a steady visitor at my office, all traces of irritation have disappeared, and the patient is well; the only sequela being a slight pharyngitis,

arising from the congestion of the mucous membrane in that locality, which is subsiding fast.

That this result will remain permanent, I am, of course, unable to say; but that it should have been reached at all, appears to me sufficiently important to warrant its publication.

To the general practitioner, however, this form of treatment would usually prove inaccessible; since, to be a success, it is essential that the proper current be employed, and used by an expert in galvanizing the brain and sympathetic. For, as Anstie says, in his late work on "Neuralgia and its Counterfeits," "the use of the battery current in these regions (the head and neck) is attended with the gravest danger, unless employed with great skill and caution." This, however, need be no serious objection, since there are now, in several of our large cities, electro-therapeutists, who will gladly place their experience and instruments at the service of their professional brethren for any and all forms of scientific researches, and I trust that these suggestions will be followed out until the number of cases so treated and the length of time elapsing be sufficient to predicate some positive statement as to the value of galvanism in this disease.

Concretions in the Vesicula Seminalis.—At a recent meeting of the Academy of Medicine of Paris, Dr. Reliquet, a specialist for the urinary organs, read a very interesting paper on spermatic colic in the left vas deferens, caused by concretions in the vesicula seminalis of that side. The subject was a married man, aged 65, of a delicate constitution, pale and emaciated. After describing the symptoms from which the patient suffered, and which began about a year before he applied for relief, in March last, Dr. Reliquet stated that he had the greatest difficulty in diagnosticating the case, so much did the symptoms resemble those of stone and enlargement of the prostate gland. In examining the patient for stone, he was seized with a violent, spasmodic pain in the urethra, and in a few minutes he expelled a quantity—about forty in number—of small, whitish bodies, varying in size from a pin's head to a small lentil, which followed a great flow of urine. These bodies presented flat surfaces and obtuse angles, like those of prostatic calculi. They were, however, soft, and broke easily between the fingers. To the naked eye, they seemed to consist of a homogeneous substance, without any enveloping membrane. The liquid which followed was sanguinolent. Dr. Reliquet, never having met with a similar case, was somewhat puzzled as to the nature of these bodies; he therefore submitted them to Mr. Charles Rolin, the celebrated histologist, for examination, who described them as "symplexions" (concretions). After the expulsion of these bodies, the patient recovered rapidly, and he no longer suffers from any pain or inconvenience during micturition, copulation or defæcation. Dr. Reliquet remarks that the surgeon is often consulted by patients suffering from severe pain during ejaculation, but that the cause is almost invariably sought in the tissues surrounding the seat of pain; whereas, if the semen be examined in these cases, it will probably be found that the disease is not so uncommon as it is represented to be, and that, at any rate, an examination of this fluid would remove all doubt in the matter.—*Correspondence of the British Medical Journal.*

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. Wadsworth, M.D.

Epithelium of the Anterior Lens Capsule.—Hosch (*Graefe's Archiv*, xx. 1) finds that the epithelial cells of the lens capsule are not, as stated by previous writers, more or less regularly polygonal, with defined contour. His investigations were made on the lens of man and various animals. Macerating the isolated, anterior capsule for two or three days in iodine serum, the cells appear provided with processes. These are single or forked, vary much in breadth, and project from all sides, or only from certain parts of the cells. The cells themselves are flat, and contain, usually, only one large nucleus. The results obtained by maceration were confirmed by the observation of quite fresh preparations, on which the edges, at least, admitted of accurate examination. Seen in their natural connection, however, the cells did appear as they have been described by others. The processes have much the same degree of development from the middle of the capsule to its periphery; but at the equator, where the nuclei are crowded together, and the cells contain but little protoplasm, and begin to be transformed into lens-fibres, the processes are quite short or entirely wanting. Hosch sees in these epithelial cells an analogue of the serrated cells found in many-layered epithelium. Serrated cells proper, however, he did not discover; the processes rather resembled the "digitations" described by Langerhans as belonging to the epithelial cells of the cornea.

Medullary Nerve Fibres in the Retina.—The presence in the human retina of nerve fibres possessing a medullary sheath has been, in several cases, anatomically demonstrated, on eyes, however, which had not been examined during life; and the ophthalmoscopic appearances considered as due to the presence of such fibres are well known. Only recently has the direct proof been afforded that the ophthalmoscopic picture is owing to medullary fibres. In the second edition of Schweigger's Text-book, 1873, a case is briefly referred to, in which the ophthalmoscopic diagnosis was confirmed, anatomically, by Virchow. Schmidt (*Monatsbl. f. Augenheilk.*, April and May, 1874) gives a second case. Seen during life, the bundles of medullary fibres appeared to begin close to or over the edge of the papilla. The microscope showed that the medullary sheaths were wanting at the lamina cribrosa and deeper parts of the papilla, but reappeared above the level of the choroid. Often, the fibres could be followed till the sheath was gradually and imperceptibly lost.

An Anomaly of Innervation of the Iris.—Schlesinger (*Pester Med. Chir. Presse*, 13, 1874, and *Schmidt's Jahrbücher*, 7, 1874) observed a paresis of the right facial in a soldier, which was said to have existed since childhood in consequence of discharge from the ear. The paresis was complicated with mydriasis of the right pupil, which differed from an ordinary mydriasis, in that the pupil, although evidently larger than that of the left eye, still reacted promptly to different degrees of light, and on strong convergence became of the same size as

the left. In the centre of the right cornea was a macula, insufficient, however, to explain the mydriasis. The eye was emmetropic, and otherwise normal. The author explains the mydriasis as due to action of the dilatator pupillæ through irritation of the sympathetic, and refers to other disturbances of nerve action complicating facial paralysis, which Tryde reported. "Impulses sent along nerves which are unfitted for conduction sometimes pass over to other neighboring nerves." In this patient, the mydriasis became more evident when he endeavored to contract the paralyzed facial muscles. Stellwag, also, has pointed out that variations in the size of the pupil accompany forced action of the facial muscles.

New Operation for Entropion and Trichiasis of the Upper Lid.—Warlomont (*Annales d'Oculistique*, May and June, 1874) rehearses the objections and inconveniences of the more effective operations for entropion, and proposes the following, which has the advantages that it does not require the removal of any portion of the skin, and does not leave the final result dependent upon the chances of cicatricial contraction, the amount of which can never be exactly estimated. The blepharospath being applied to check bleeding, an incision is made, involving the skin only, parallel to the ciliary border, and 2–3 mm. distant from it. Then a flap, of skin only, is dissected upward so as to lay bare the orbicularis muscle up to the upper edge of the tarsus. The edge of the lid is split by passing a knife, with double edge and curved on the flat, behind the lower lip of the incision previously made along the anterior surface of the tarsus and through the free edge of the lid close behind the ciliæ. A bridge of skin and muscle containing the ciliæ is thus formed, as in the so-called Arlt-Jaesche operation. The upper edge of the tarsus is laid bare by removing a narrow strip of the orbicularis, and the upper end of the bridge fastened, by sutures, to the fibrous tissue firmly united to the tarsus, or to the tarsus itself. This last is the important step of the operation, on which its success depends. The flap of skin above is left to itself. If the tarsus is much curved, a piece is removed, as in Streatfeild's operation, before placing the sutures. The sutures should remain three or four days.

Hypertrophy of the Lachrymal Gland.—Savary (*Annales d'Oculistique*, March and April, 1874) describes a case occurring in a man, 59 years of age. The tumor was said to have developed after a blow received three years before, and had gradually pushed the eye forward and downward; it was situated under the outer part of the orbital roof, appeared hard and about the size of a pigeon's egg, and gave rise to continual overflow of tears, and occasional pain. The removal was difficult, as it reached backward to the bottom of the orbit, and its fibrous envelope was attached firmly to the periosteum. There were some cerebral and other symptoms, the first few days after the operation, which disappeared as suppuration was established. The wound healed in four weeks. The exophthalmos was scarcely to be remarked, and the overflow of tears had ceased.

Removal of Metallic Deposits on the Cornea.—Heckel (*Journal de Thérapeutique*, 8, 9, 1874) blames the asserted frequent use by oculists of metallic solutions in cases of ulceration of the cornea, and describes the thickness and depth of the resulting incrustations as dependent on the amount of the original loss of substance. He seems to have ex-

perimented chiefly on animals, and as he mentions only two cases in which he has observed lead deposits in man, his statement that these are of frequent occurrence would seem hardly justified. He states that he has removed lead deposits in the space of a month, by the use of a solution of acetate of soda, gr. iss. to ʒi.; but the frequency of application of the solvent is not given. Hypothetically, subsulphate of soda should be used for deposits of silver, and weak alcohol for resinous deposits. If the deposit be covered by epithelium, mechanical means are alone of avail.

Optic Neuritis as a Symptom of Intracranial Tumor.—That optic neuritis is of not unfrequent occurrence with intracranial new-formations (what Hughlings Jackson calls "coarse disease") is now generally known. Its diagnostic value as a symptom, and hence the importance of ophthalmoscopic examination whenever there is anything to excite suspicion of the presence of such disease, has often been insisted on. Various reasons have, however, conspired to prevent this symptom receiving, generally, the attention which it deserves:—the fact that the statements formerly made that a particular form of neuritis was pathognomonic of cerebral tumor have been shown, by an increased number of observations, to be incorrect; that neuritis, also, occurs with other forms of intracranial disease than new-formations; the opinion expressed by some authors that neuritis is wanting in a large proportion of cases of intracranial growths; the still widely prevalent belief that neuritis must, except in very rare instances, give rise to such disturbance of vision as would readily be noticed, both by patient and physician.

Annuske (*Graefe's Archiv*, xix. 3) has contributed a valuable paper on this subject. The observation, within a comparatively short time, of a pretty large number of cases of proven or supposed intracranial tumors led him to an investigation and comparison of published cases, and through these, together with his own observations, he came to the belief that the diagnostic value of optic neuritis had been, hitherto, universally too lightly esteemed. Of 271 cases of intracranial tumor, verified by autopsy, which he collected, only in 43 was there note of ophthalmoscopic examination, and in one of those the result of the examination was not given. Of the remaining 42 cases, white atrophy was found in 8; in 1, neuritis of one side only; in the others, double neuritis. To these are to be added five cases of his own with autopsy, in all of which there was double neuritis, or the commencing stages of atrophy from neuritis.

Atrophy of the disc is, in all these cases, to be regarded as the result of, and therefore as having the same significance as, neuritis. In most of the cases where atrophy was noted, the traces of a previous neuritis were also observed; the absence of such traces in one or two instances is not sufficient to prove that neuritis had not existed. Where the appearance of simple atrophy alone was found, it was at a comparatively late stage of the disease, and there is ample evidence to show that an atrophy following neuritis may, in time, differ in nothing, so far as ophthalmoscopic appearance is concerned, from a simple, primary atrophy. There is, of course, the possibility that simple atrophy, from intracranial growth, may occur, but it has never been demonstrated.

The amount of disturbance of vision found must depend, in some

degree, upon the stage of the process at which the test of the function is made. Frequent instances have been reported, in which there was little defect of vision, and of 19 cases of neuritis observed by Annuske (not all, indeed, from tumor), in six was there vision between ½ and 1.

Annuske has been unable to find evidence in support of the statements which have been made that intracranial tumors often do not give rise to optic neuritis, and believes such statements to be the result of insufficient or imperfect observation. He regards optic neuritis as almost without exception a constant symptom, and, in general, a comparatively early one. Its occurrence with other intracranial affections cannot be considered to greatly invalidate its importance as a symptom of tumor. On the one hand, the other intracranial affections which are likely to give rise to neuritis can (exceptional cases aside) only temporarily cause error in diagnosis, since their other symptoms characterize them as acute diseases; while tumors, though often exciting acute symptoms for a time, follow always in general a chronic course. On the other hand, such intracranial affections as are likely to be confounded with tumors from their general symptoms and course (chronic encephalitis, softening and cerebral abscess), never excite optic neuritis.

No attempt is made to decide the manner of connection between the new-formation and the neuritis; neuritis has been observed in connection with tumor situated in almost every part of the intracranial cavity; with tumor of very small size, and in cases in which the rate of growth of the tumor varied greatly. It is regarded, however, as worthy of farther attention that a collection of fluid in the ventricles was recorded in 15 of the 43 collected cases, and was found in the 5 cases of his own, in which there was an autopsy.

Reich (*Monatsbl. f. Augenheilk.*, June and July, 1874) gives farther statistics of intracranial growths, which confirm, in the main, those of Annuske, though they make the proportion of cases in which neuritis is wanting somewhat greater. Of 86 cases, not included in Annuske's tables, there was ophthalmoscopic examination in 45. In 41 of these, there was double optic neuritis or atrophia ex neuritide; in 1, neuritis of one side; in 3, no change in the disc.

Taking all the cases given by both writers (92), there was—

In 95·65 per cent., optic neuritis or atrophia ex neuritide.

In 93·5 per cent., double.

In 2 15 per cent., of one side.

In 4·35 per cent., no ophthalmoscopic change.

Poisoning by Bromo-Chloralum.—Dr. R. C. Hewett reports, in the *American Medical Weekly*, Oct. 10, 1874, a case of poisoning by the above agent, which is put up in bottles labelled "non-poisonous." The patient was a healthy negro girl, 16 years of age, who said "she took three swallows of bromo-chloralum, and nothing else," and remained in a profound stupor for five hours, the medical attendants, meanwhile, being unremitting in their attempts to restore her to consciousness. The symptoms were those of profound stupor, the pulse, respiration and pupils being normal. A peculiar cataleptic condition was present, the body and limbs retaining any position in which they were placed. Her physicians at first suspected malingering, but satisfied themselves that such was not the case. A slight sore throat, and a languid, stupid expression were the only symptoms that remained the day following the poisoning.

Bibliographical Notices.

Therapeutics and Materia Medica. A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By ALFRED STILLE, M.D., &c. &c. Fourth Edition, thoroughly revised and enlarged. Two Volumes. Philadelphia: Henry C. Lea. 1874.

A NEW edition of so well-known a work as that of Dr. Stillé cannot fail to command attention, even among the present multitude of text-books and monographs upon the subject, and its old reputation is not likely to be eclipsed thereby, for although others are more modern in their methods and in many of their facts even than this edition, yet Dr. Stillé has avowedly written from a somewhat different point of view, and, consequently, if his work is directly compared with those of Nothnagel and Wood for instance, a question of methods and principles as well as of details at once arises.

In the preface to the first edition (1860), Dr. Stillé speaks of the "action of medicines upon the sound organism of man and the lower animals" "being somewhat more copiously illustrated than is usual in treatises on materia medica," while at the same time asserting that clinical observation is the final test to which we must appeal.

The results of experiments upon the action of drugs made since that edition was published, or which were hardly accessible at that time, have been so striking and so suggestive that the enthusiastic have supposed the time near at hand when therapeutic uses might be reasoned out from physiological data. Our author, however, still considers them "fragments of scientific knowledge which may one day serve to bridge the chasm between theory and practice."

The literature of the last five years shows that physiological experiments can furnish suggestions and explanations only, and that clinical observation may surpass them in the accuracy and reliability of its facts.

The effects of chloral, for instance, are better known to the practitioner than its *modus operandi* is to the physiologist, since the theory which led to its transformation from a chemical curiosity to a useful drug is very far from having been proved true, and its discovery may, after all the jubilation over "therapeutics beginning in the retort," turn out to be made, as that of the planet Neptune is said to have been, by mistake.

The fact that quinia cures intermittent may possibly be explained by recent experiments of Binz and his pupils, but its existence is much more firmly established than theories, and it will be entirely unaffected by the fate of any theory of its action.

Although we may regret that Dr. Stillé's book is not now comparatively so complete upon the physiological side as some of its rivals, yet, looking at it from the point of view indicated above, we can hardly admit that it has a rival in the multitude of its citations and the fulness of its research into clinical histories, and we must assign it a place in the physician's library, not, indeed, as fully representing the present state of knowledge in pharmacodynamics, but as by far the most complete treatise upon the clinical and practical side of the question.

The present edition contains articles on bromide of ammonium, lithium, &c., nitrite of amyl, chloral and other drugs not mentioned in the last edition. The nomenclature conforms to the last edition of the Pharmacopœia.

Transactions of the Pathological Society of Philadelphia. Volume Fourth. Edited by JAMES TYSON, M.D. Philadelphia: printed for the Society by J. B. Lippincott & Co. 1874. Pp. 250.

THOSE who are familiar with the preceding volumes of reports of this Society will be surprised to see the admirably printed and illustrated volume

now presented. There can be no question that in externals a marked advance has been made.

The retiring President, however, is obliged to call attention to the somewhat diminished interest in furnishing material for future publications, and states, very clearly, what has always been observed in similar societies, that a mere presentation of specimens is not sufficient to keep up a real interest in the objects of the Society. The remedies he suggests are quite to the point, and, if acted upon, will undoubtedly accomplish the desired result.

Among the various specimens was one of hydatids of the liver, with a similar cyst in the pelvis. It would have been very interesting had a discussion been reported concerning the method of origin of the latter. The inference from the account would naturally be that, as originating from the tissues of the pelvis, it probably developed beneath the peritoneum. Notwithstanding the distinct statement that the sac was found to be covered by peritoneum, we hardly think the possibility of its having become separated from the liver and its subsequent gravitation into the pelvis have been sufficiently entered into.

The elaborate report of Dr. William Pepper, with reference to the treatment of scirrhus of the pylorus, is worthy of notice as evincing a desire to combine the clinical aspects of the case with the pathological lesions; a matter of no little importance when we realize how many members of such a society are those who possess merely a general, particularly a practical, interest in the proceedings.

Among the curiosities is a specimen of cystic disease of the testis. It is unfortunate that this specimen was not referred to the committee on morbid growths, particularly as the possibility of the presence of a teratoid tumor is so directly suggested, the age of the patient, the gross appearances and the pathology of such alterations of the testis being considered.

It might seem captious to demand that every case should be fully reported, and yet one is often obliged to regret, with the President, that the "indisposition to discussion has been gradually increasing, until now it is a positive evil."

Much of the value of such publications consists in the use of their material by those who are at a distance and who are compelled to be exceeding slow in accepting mere statements. Doubts which arise cannot be removed, and aid which might be valuable has to be rejected through fear that it may prove unsuitable.

In calling attention to some of the faults, it would be unjust not to refer to the many merits of this book. Its publication shows a most commendable interest in the subject, and in so large a medical centre as Philadelphia we are not disappointed in finding much that is rare and interesting. The Editor has done his part so well in the arrangement of material that it would be unfair to call upon him for more. But Dr. Tyson has been one of the most frequent contributors, doubtless due to his well-known interest in pathological anatomy.

There is one feature in the constitution of the Society which is an admirable one and may well be adopted by others. We learn that a necessary sum of money is granted to those members who are pursuing pathological investigations and who desire such assistance, the only conditions being that the results of such research should be contributed to the Society.

Proceedings of the Maine Medical Association, 1874. Twenty-second annual meeting.

If we accept the evidence offered in the published transactions before us, the Maine Medical Association gathers strength with its increasing years and has fully passed the stage of adolescence; for we find here abundant proof of a vigor and an enthusiastic purpose which encourage great expectations for the future of the medical profession in Maine, and show its present standard to be very high. We have space for the mention of only a few of the interesting papers included in the proceedings.

The inaugural address, by Dr. Page, the president, is a brief but suggestive exposition of the practical duties of the profession. A timely allusion is made to the increasingly important relations of sanitary science, and the necessity for the institution of a State Board of Health is insisted on.

The annual address, by Dr. R. K. Jones, had for its subject the Limitations of Medication. After a review of the various systems of medical practice recorded in history, the orator dwelt at length on the more rational methods of the present day, the avoidance of active and needless medication, reliance on natural processes and the economizing of the vital powers. The address is excellent in tone and bears the impress of mature thought.

Dr. Weeks reports on the subject of Vaccination. The familiar story of the ravages of smallpox before Jenner's day, and of the wonderful benefits bestowed by the discovery of vaccination is rehearsed. Observations on the utility of compulsory vaccination are followed by an allusion to the subject of impure vaccination, and the transmission of other diseases than vaccinia, the author asserting that inexcusable carelessness on the part of the operator must be an antecedent condition of infection. A frequent return to the primary source of the lymph, the pure cow-pox, is advocated, and the necessity for repeated re-vaccination is urged.

Dr. Hamlin treats of the transmissibility of consumption, and discusses the sanitary measures to be taken to modify the course and stay the progress of the disease. Incidentally, the writer alludes to the artificial feeding of children. His formula for bottle-milk does not make it necessary to dilute or to warm the cow's milk, "healthy and selected cow's milk, with the addition of a little cooked and strained oatmeal, and a spoonful of lime-water, being a safer diet for infantile life than the milk of more than one-half of the mothers of the present day."

Dr. G. W. Foster, in a paper on the Treatment of Hyperpyrexia, favors the application of cold baths and the use of alcohol and quinine, the latter in large doses.

Dr. Sanger reviews Esmarch's bloodless method in surgery with approval.

Dr. T. A. Foster presents a searching review of the much-reviewed "Sex in Education." The writer finds much to criticize in the physiology of the book, and not a little to deprecate in the teaching and tendencies of Dr. Clarke's educational philosophy.

Dr. Libby reports a case of extensive Nævus of the Face removed by the local application of carbolic acid.

As a whole, these transactions are very creditable to the association under whose auspices they are issued.

Croup in its Relations to Tracheotomy. By J. Solis Cohen, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest, in Jefferson Medical College. Philadelphia: Lindsay & Blakiston. 1874. (Reprinted from the Transactions of the Medical Society of the State of Pennsylvania.)

Though containing nothing original, this essay is valuable from the carefully prepared statistics of the operation in different countries, in different epochs, and performed on patients of different ages. The author deserves great credit for the industry and method to which the tables bear witness. We cannot but think that the tables of American practice are the most imperfect, but we are not inclined to lay the blame on the compiler as much as on the operators who have not reported their cases. The table records only twenty-four cases of the operation in this city, and, knowing as we do that this is but a small proportion of those performed, we cannot but regret that our surgeons have not seen fit to give the profession at large the benefit of their experience. The author's conclusions are as follows:—

"1. That there are no insuperable contra-indications to tracheotomy in croup.

"2. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation; but that it should be used with great caution.

"3. That a careful dissection should be made down to the windpipe, before incising it, whenever there is at all time to do so.

"4. That the incision should be made into the trachea as near the cricoid cartilage as possible, to avoid excessive hæmorrhage and subsequent accidents that might occasion emphysema.

"5. That a dilator should be used, or a piece of the trachea excised, whenever any difficulty is encountered in introducing the tube.

"6. That the tube should be dispensed with as soon as possible; or altogether, if the case will admit of it.

"7. That assiduous attention should be bestowed upon the after-treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four hours immediately following the operation."

We may be permitted to remark that, in the paragraph 2, the case is stated very mildly; unless in exceptional cases, ether is not only admissible but advisable. The method of operating is discussed at some length, but we see no allusion to a very important point, namely, that, after an adequate incision through the skin, the edge of the knife should, except in cases requiring great despatch, hardly be used at all, but the trachea laid bare by careful picking with blunt instruments as with a director. This practice will leave less room for the discussion as to how far hæmorrhage should have ceased before the trachea is opened. Nothing is said of a source of danger, which is, perhaps, not enough considered in this country, though absurdly over-rated in Germany, namely, the entrance of air into the veins. We regret, also, that the author does not give any conclusion as to the time for operating, which is, really, the most important aspect of the whole question. In spite of these short-comings, we can recommend the work as containing a large amount of information.

Essentials of the Principles and Practice of Medicine. A Handbook for Students and Practitioners. By HENRY HARTSHORNE, A.M., M.D. Fourth Edition. Philadelphia: Henry C. Lea. 1874. Pp. 548.

WE cannot speak favorably of a book of this kind, though it is, no doubt, occasionally convenient to the practitioner and only too acceptable to the student, whom it leads by short cuts to practical results, which, to be really valuable, should be reached by a course of hard reading. The book is carefully written, and though we could find something to criticize we could find more to praise, were it not that we consider its very nature objectionable.

BOOKS AND PAMPHLETS RECEIVED.

On Sects in Medicine. By John C. Peters, M.D. New York. 1874. Pp. 22.

Therapeutics and Materia Medica. By Alfred Stillé, M.D. Fourth edition. In two volumes. Philadelphia. Henry C. Lea. 1874.

Croup in its Relations to Tracheotomy. By J. Solis Cohen, M.D. Philadelphia: Lindsay & Blakiston. 1874. Pp. 78. (For sale, in Boston, by James Campbell.)

The Medical Register for the State of Massachusetts. By Francis H. Brown, M.D. Boston: W. P. Lunt. 1875.

HYDROPHOBIA.—A short time since, a young man named Henry Sivyer put up at the Rock, Cliffe, Lewes. He slept at an outhouse which had hitherto been occupied by a lurcher dog. Towards morning the dog broke loose, and proceeded to dispute possession of his old quarters with Sivyer. The dog eventually bit the man severely in the hand. The next day he bit another man, two dogs and a cat. Sivyer has lately died, after four days' illness. During the latter part of his illness, he refused all liquids. The other man who was bitten has as yet felt no bad effects.—*British Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, November 5, 1874.

This is the season of political excitement. When this is read, the State elections will be over; but, as we write, they are still in the future. The physician is precluded from taking any active part in politics. His modest career of usefulness is not to be interrupted by the excitement of the struggle, the exultation of success or the mortification of defeat. He stands aside and watches the game. As a citizen, he votes according to his views; and, with that, he too often thinks his responsibility ends.

As the representative organs of the profession, medical journals take no part in the violent debates of the times. We have nothing to say of the claims and merits of rival parties, so long as the issues are of a merely political character; but when, as is often the case, sanitary measures of great importance depend on the result of an election, it becomes the duty of the profession to express its opinion, and to use its influence on the side of health. There are many points concerning which the opinion of the physician is of greater value than that of his neighbor, the merchant or the lawyer; and he should not hesitate to express it freely, in support of the right. Often, of course, there may be an honest difference of opinion; but, in many cases, there is no room for doubt, and, in such, the united votes of the profession would serve as a healthy check to whichever party might be in power.

In the present election, the only question of a sanitary nature is the old and vexed one of prohibition. We have said, long ago, that we thought the profession largely responsible for the present deplorable and demoralizing state of affairs, but we recognize the right of others to take a different view of the matter. We are glad to believe that the farce is nearly played out; public contempt has been growing more general and more outspoken; people are beginning to appreciate that the opinion of a candidate on a question of this nature is more important than the name of his party; and we are confident that, if this year does not rectify the abuse, another will.

The duty of the physician is usually clearest and his influence greatest in the sanitary affairs of his own city or town. He should, as far as his opportunities permit, instruct himself in the laws of water supply, drainage, ventilation, &c., and should watch to see that those in office do their duty to the community in these matters. The influence of the profession is so rarely exerted that we ourselves, as well as

others, are apt to forget its power; but it is a reality none the less. It had a large share in creating the public indignation which, during the ravages of the smallpox, two years ago, forced the reluctant city government to establish a Board of Health; and, should it ever be necessary, it will undoubtedly assert itself again. Now, to have power is to be responsible not only that it is used justly, but, also, that it is not neglected, as we fear is too much the case. It is far from our intention to imply that we would wish physicians to become adepts in the dubious arts by which the inner wheels of public affairs are moved; we should shudder to see them ward politicians, but we believe that there are many ways alike open and effectual by which they can and should exert an influence in many questions of public good.

Atropine as an Antidote to Morphia.—By S. Wordsworth Poole, M.D., Sidcup. Many experiments on the lower animals have been performed by Dr. Reese, of Philadelphia, and others, to prove the antagonism of these two narcotics; but they cannot decide that in man the one drug is an antidote of the other; that is, according to the derivation ἀντί-δίδωμι the one ought to be given to counteract the other, and for this reason: animals exhibit an extraordinary tolerance of these poisons—one dog swallowed 8 grs. of atropine one day, and 14 grs. the next, and yet completely recovered without any means being taken to save it.

It is plain that observations to be of value to man must be made on man; and as there are at present but few, I hope the following may be of use in determining a question of such grave importance.

The patient was a lady of 28, whose temperament, by nature keen and nervous, had been rendered doubly so by a series of trials, both mental and physical, enough to shake a constitution of iron. When quite young, she had been affected with brain fever, and the striking feature of that disease, delirium, always showed a tendency to return after any excitement, especially after parturition, and on two occasions lasted for about three days. On the other hand, slight fatigue was often followed by syncope, and she would lie in a trance, scarcely breathing, until stimulants were freely administered.

On the 7th of July, I had to perform a serious operation on one of the members of her house. Her keenest feelings were all astir, and there was a deep flush on the cheek I never saw before. For two weeks, there had been headache and giddiness, and she had fallen down stairs from vertigo.

Suddenly, whilst at tea, an attack of hysteria came on—sobbing, raving, and ejaculations of mental agony, and attempts to tear the hair and face. Then followed two symptoms never present in any of her former attacks—clonic spasms of the oral muscles, and slight opisthotonos.

Stimulants were given, but to no purpose. It was difficult to keep her from self-injury; and in order rapidly to control and relieve her, I injected one grain of hydrochlorate of morphia at 7 P.M. She was conscious of this, and became for a while more violent and vociferous, but gradually grew manageable, though talking incessantly, and about 8.30 walked with help up stairs, and was laid in bed. Though morphia had never before been injected, the liquor opii had been thus employed in doses of 60 drops as an anodyne, with moderate effect, several times, and it had not produced a symptom which was now very marked, extreme itching about the nose.

At 9, the breathing became very slow, so that she had to be held sitting, as it threatened to stop altogether when lying down. She grew quite still until roused, when the talking went on. As she complained grievously of

being kept up, and as the pulse went beating steadily on, I allowed her to lie down, keeping my ear over the heart, to hear if the respiration would return; but the moments sped on, and no breath was drawn, and the trial was abandoned. Brandy had been very freely given; now ammonia was tried by the nostrils; then Sylvester's method; then forcible movements; for the respirations stopped, the face became deadly pale, and the pupils were mere pin-points; the voice was silent, and every votuntary movement gone.

About 11, P.M., the horrible feeling was forced upon me that in a few minutes the narcosis would prove fatal.

One resource was left, the injection of atropine, and this had not been tried, as there were not present in my mind many instances of its success, and I had frequently found this alkaloid produce much delirium.

The *American Medical Times* records a case in 1871, where a man swallowed and absorbed an ounce of laudanum, equivalent to 24 grains of opium, became deeply comatose, with four respirations per minute, and recovered after having two-fifths of a grain of atropine injected in the course of eighteen hours, one-thirtieth at a time. In my case, though the dose of the opiate was much less, the coma came on more rapidly, and the respirations were not one a minute.

The patient being propped up in an arm-chair, I injected one-sixth of a grain of sulphate of atropia, and sat down watching with intense interest for a change. In ten minutes, the pupils were dilated well-nigh to the full, and the breathing became regular, though very slow; but other changes there were none.

Soon after, Mr. B. P. Matthews, of Chiselhurst, arrived. On taking into account the giddiness, the suffusion of face, and the convulsions, his opinion was that the case was one of idiopathic congestion of the brain, with narcosis superadded. Cold water was applied to the head, and hot water to the feet; and we kept putting fluids into the mouth in order to provoke action of the muscles of deglutition, and thus keep up some vitality, for there was complete acinesia as well as anæsthesia. Altogether, her appearance was appalling, and too painful to be minutely described. About 3, A.M., vomiting was induced several times, and a slight moan indicated the vestige of sensation; but the breathing grew stertorous, and the pulse, which had all through beat on manfully, began to flicker, and all hope was abandoned.

I have now to record the most striking instance of successful treatment I have ever witnessed. At 6, A.M., she was laid down, and the large, India-rubber bottle, hitherto at the feet, was filled with boiling water and applied to the præcordia. The effect was marvellous, well-nigh miraculous. The patient raised herself up, and, with both hands, tried to push the bottle away, uttering the word *please* in accents indistinct, yet recognizable. The cue to the recovery was found, and it is needless to describe the after-stages.

Anorexia and prostration lasted for several weeks.

As illustrating the antagonism of the drug, this case presents the serious defect that it is impossible to estimate how much of the cerebral congestion was toxic and how much idiopathic. But this much is certain: the subject was *in articulo mortis* from failure of respiration, with contracted pupils, and immediately on the atropine being circulated through the system, these two symptoms disappeared. As these are both acknowledged consequences of opium narcosis, it is plain that the atropine saved my patient from her more threatening foe.

Can this agent counteract the coma or stupor produced by alcohol?

As hypodermic injections are destined to play so great a part in medicine, it may be even in toxicology, one can hardly over-state the need for determining the question of antidotes.

How many of us have not wondered that the serpent, the most venomous of all created things, the very incarnation of evil, should have been worshipped throughout all antiquity as "the good demon," and should have been even to the present day accepted as the emblem of the healing art? Why ophiolatry should have been so general, I do not comprehend, in spite

of the learning bestowed on the subject, for it existed long before the brazen serpent cured the plague-struck Israelites; but the special assignment of this animal to the god of medicine seems to me a recognition of the fact that by our art the poisonous principles found in nature were converted into agents for the cure of disease (the idea that it was on account of vipers being often employed in pharmacy is too trivial to be entertained); and the acknowledgment of this great truth seems almost prophetic when we consider how potent and subtle are the remedies now employed, and above all how an instrument, closely resembling, in its mode of action, the tooth of the envenomed beast, forms part of the armamentarium of every son of Æsculapius.—*Practitioner.*

Anomalous Symptoms as the Result of Blood-poisoning.—Catherine R——, æt. 61, a cachectic-looking, jaundiced, and much-neglected old woman, was admitted into the Whitworth Hospital on August 13, 1874, under the care of Dr. Lyons, with far advanced, malignant hepatic disease, the liver being studded with tubercles, which formed an enormous tumor in the abdomen. After some amelioration of her symptoms, she gradually sank, and, obstinate diarrhœa of a very fœtid nature having set in, died on Friday, September 18th, at 1 o'clock, P.M. During the morning of that day, she was continually vomiting some very offensive matter, which was described as being somewhat like the contents of an abscess, but of a dark brown color. At the autopsy, the liver presented a typical example of Farre's tubercle. It had no abnormal communication with the intestines or stomach. The renal organs were in a granular, contracted condition. The other abdominal viscera appeared healthy.

B. P——, æt. 23, and R. P——, æt. 22, nurse and wardmaid respectively, had been attending this patient during the morning of her decease. They felt a little sick at first, from the odor proceeding from the vomited matter, but after breakfast were quite well again. Ten minutes after her death, they proceeded to arrange the body for transmission to the dead room, when an intestinal discharge occurred, of an extremely fœtid character, and which was characterized by all present as "most abominable." In about eight minutes after, the nurse was attacked with a dry retching, and a sensation as if going to swoon. She managed to get into her room, adjoining the ward, where she vomited, and then became quite unconscious, and had no recollection of anything that occurred subsequently until about 4 o'clock, P.M.

When Mr. Farrell saw her, she was sitting up, supported by two women, screaming and throwing her arms wildly about. Both pupils were widely dilated, and her eyes very much congested. The pulse was very rapid and irregular. She cried out that her stomach was very "sore" and "sick," and made frequent ineffectual attempts at vomiting. There was no tenderness on pressure over the epigastrium. Considerable spasms of the muscles of deglutition and of respiration existed, resembling very much those of hydrophobia, and continued, with occasional intermissions, for about two hours. In about a quarter of an hour, she commenced to cry, calling for her mother, and from an apparent conscious state she would lapse into a state of stupor, her eyes firmly fixed, and insensible to light. Respiration and pulse very slow. Acting on the supposition that she might have taken some tincture of aconite, an emetic was administered, followed by a turpentine enema. Considerable dysphagia was noticed. She swallowed with evident pain and difficulty, and in a very peculiar, gulping manner. She continued in a semi-unconscious state, now and then jumping up with an expression of great mental terror and agitation on her countenance, or rolling to and fro in the bed, as if in pain, until 4 o'clock, when she was seen by Dr. M'Dowel, whom she recognized. She said she did not know what had happened to her, and that she had lost the use of her limbs. Full motor power and sensibility, however, existed. Ice-bags were ordered to be applied to the nape of the neck and upper spinal region, and fifteen grains of hydrate of chloral, to be given immediately.

Soon after the application of the ice, she regained complete consciousness,

and had no subsequent relapse. The chloral draught was not retained more than a couple of minutes, and a second was given in an hour with a similar result. In the evening, she complained of a feeling of oppression, and a sensation "as if something was in her throat." She had a violent, frontal headache and pain in her back, especially in the lumbar region. She was able to take some tea later on, but still remained in a very weak, depressed state.

R. P——, wardmaid, æt. 22, was attacked ten minutes after the nurse got sick. She vomited while at the dead woman's bedside, and hastened to her room, where she fell down unconscious. She seemed at that time in a stupid state; her head drooped, whilst occasionally she rolled it from side to side in a wild manner. Her eyes were firmly closed and pupils dilated. When removed to bed, she continued in a state of stupor, from which she awoke occasionally, and tossed herself about violently, without speaking or uttering any sound. Laryngeal and pharyngeal spasms existed, similar to those which were observed in the nurse, and violent, choreic, convulsive movements supervened, and lasted for nearly two hours.

When Dr. M'Dowel saw her, she was still quite unconscious, and the body was violently convulsed. Ice-bags were applied to the spine, and in about half an hour consciousness began to return. She then complained of a sense of oppression and suffocation, "as if she was under water," and being extremely cold and shivering, the ice was removed. An enema, containing twenty grains of hydrate of chloral, was then administered. She passed the rest of the evening quietly, but complained of severe headache and pain in her back.

Saturday.—Both patients slept well, and had no return of spasms. Headache and pain in back not much better. Feel very weak.

Sunday.—Pains better. Got up for a short time, but R. P—— had to return to bed, complaining of great weakness.

Monday.—Better, but still pain in the back in both cases.

Thursday.—Both feel unfit for work, and are going away on leave. Pain in the lumbo-dorsal region still exists. Complete recovery ensued in a few weeks.

Remarks.—Dr. M'Dowel was of opinion that in the case of both women the medulla oblongata was under the toxic influence of the noxious gas, which they had inhaled from the dead body, associated, perhaps, with hysteria in the wardmaid; such examples of poisoning, he believed, were extremely rare. It may be added that both women were strong, active, and previously healthy, with no appearance of anæmia or chlorosis. They had been in the Hospital about four years, and were quite habituated to the unpleasant sights and smells so often associated with dissolution, and they stated that they could not account for what had happened them on this occasion. The remarkable spasms of the muscles of respiration and deglutition—the mental terror and agitation that existed, especially in the case of the nurse—the dilated pupils—their not having taken any food or drink since 8, A.M., and then only their usual meal—and, notably, the coincidence of their both being attacked almost simultaneously, seems conclusively to indicate that the symptoms they labored under were the result of the absorption of a poisonous gas which emanated from the body of the deceased.—*Irish Hosp. Gaz.*

Report on the Cholera in Munich.—During the epidemic of cholera in Munich, in 1873–4, the police authorities collected an abundant supply of statistical material, in order to obtain starting facts for researches in the spread of the disease, and the means of resisting it. The following subjects are comprised in the materials referred to: 1. An enumeration of all streets and places in which no cases of cholera occurred, and a statement of the condition of their sewerage; 2. A sufficiently accurate statement of the daily number of cases and deaths; 3. A summary of the cases of disease and death, arranged according to the fourteen police districts of the city; together with a statement whether the cases were observed in the summer epidemic (June 26 to November 16, 1873), or in the winter epidemic (November 27, 1873, to April 28, 1874); 4. An enumeration of the cases of disease and

death, arranged according to houses and streets, with special notice of the condition of the population and of the sewerage, and of the time at which the disease occurred; 5. An alphabetical index of all the streets and places where cholera occurred, with various details. Among the facts ascertained is the interesting one that of the 400 streets of Munich, 122 had not a single case of cholera; and that of these 122, 93 are without drainage. The total number of cases was 3,040, of which 1,466 were fatal.—*British Medical Journal.*

Correspondence.

Hard-boiled Eggs and other Matters.

"It will surely kill you if you eat that hard-boiled egg. Dr. —— says so." We heard a woman say this to her daughter at a hotel table the other day. We made no audible comment, but could not help thinking quietly how many times we run the risk of life in the same way. And when, at the supper table, we saw this parent eating sponge cake, which was unexceptionable, we tried to tremble for her rashness, and wondered if baking the egg made it more digestible than boiling. And then we wondered if Dr. —— ever said so. And then we remembered how many times we had heard that Dr. This and Dr. That had said one thing and another thing, which we knew they had never said. And we remembered the story of the three crows that somebody vomited. And, on the whole, we thought that it is not best to trust much to what somebody says "Dr. —— said."

But, in the first place, about hard-boiled eggs. We have seen dyspeptics who suffered untold torments with almost every kind of food, and torments of which they did tell after some medicines given for relief. No liquid could be taken without suffering. Bread became a burning acid. Meat and milk were solid and liquid fires. We have seen these same sufferers trying to avoid food and drink, and even going to the enema syringe for sustenance. And we have seen their torments pass away, and their hunger relieved by living upon the white of eggs which had been boiled in bubbling water for thirty minutes. At the end of a week, we have given the hard yolk of the egg with the white, and upon this diet alone, without fluid of any kind, we have seen them begin to gain flesh and strength, and refreshing sleep. After weeks of this treatment, they have been able, with care, to begin upon other food.

"And what medicine?" says Dr. Doser. Why, no medicine. We advised them to throw physic to the dogs; to avoid it as poison; that medicine had been partly to blame for the dyspepsia. But Dr. This and That thinks we injure the profession by talking against medicine. We don't mean to talk against medicine. It is a very useful thing; sometimes useful when we give it, and sometimes when we don't. But we don't mean to use it, when it is not needed, and especially when something else will do our work better. Physicians need not fear that there will not be work enough for them, and if without medicating, why, so much the better.

Thus much for hard-boiled eggs. Not half so bad as half-boiled ones, and ten times as easy to digest as raw eggs, even in egg-nog.

In the second place, about what "Dr. —— said." We wish to caution the reader not to believe a tithe of the statements quoted in that way. A set of busy-bodies like to tell what he said. They misunderstand one half and invent the other. You know that there are fools in every profession, but you know, if you stop to think for a moment, that Dr. —— is not one of them. And then there is an occasional old fool, generally a female fool, who talks for a living, who has had everything that mortal ever had happen to her, except the risks of becoming a parent; who always had every disease more severely than any one whom Dr. —— ever knew to have it, and recover; and who had every sickness more times than any one else. This is the person to whom you can generally trace Dr. ——'s opinion. ***

Medical Miscellany.

AN inebriate hospital is to be established in London.

DR. T. LAUDER BRUNTON will succeed Dr. Anstie as editor of the *London Practitioner.*

WE understand that Dr. E. H. Clarke is about to retire from the fatigues of general practice and to devote himself solely to office and consultation practice.

THE American Public Health Association will meet in Philadelphia Tuesday, Nov. 10, 1874. The session will continue three days, and many interesting papers are promised.

DR. BURGGRAEVE, Honorary Professor of the University of Ghent, has formed the idea of celebrating the centennial of the discovery of vaccination by publishing a folio volume, on vellum, illustrated with the portrait of Jenner.—*The Medical Press.*

WE think Dr. Macnamara is right in suspecting that there are many surgeons who have performed every brilliant feat in the wide range of surgery, but who have yet shrunk from doing the simple operation of venesection. In a very wide experience during the last fifteen years in the hospitals of this city, we have known of but three cases of bleeding,—two having been under our own care.—*Phil. Med. Times.*

LEPROSY IN CANADA.—Leprosy is said to prevail to a considerable extent in the little village of Tracadie, at the mouth of Miramachi river, Canada. The inhabitants of the village, who are of French descent, have established a hospital for the worst afflicted of the citizens. The disease is understood to have been brought to Tracadie by a French vessel, which was wrecked off the coast some eighty or ninety years ago, and on board of which was a quantity of clothing from Asiatic ports.—*Canada Med. and Surg. Journal.*

ERGOTIN INJECTIONS IN PROLAPSUS ANI.—Von Langenbeck, of Berlin, announces that he has lately been treating prolapsus ani "with astonishing success" by hypodermic injections of a solution of ergotin (five to fifteen parts to one hundred of distilled water). He replaces the bowel, and inserting the point of the syringe about three centimetres in depth in the cellular tissue, throws in from one to two grains of ergotin. This should be repeated every three or four days, for three or four weeks, any hard fæcal masses in the bowels being first removed by simple injection.—*Medical Press.*

EMPLOYMENT OF WOMEN IN FACTORIES.—At the recent meeting of the German Sanitary Congress, Dr. Hirt, of Berlin, brought forward some very instructive facts in reporting on "the employment of women in factories," referring to the injurious influence of certain branches of industry, especially those in which mercury, lead, arsenic and phosphorus were used, on pregnant women. In these cases, they were liable to produce abortion, and he held that women ought to be excluded from such labors during gestation.—*The British Medical Journal.*

HORSE-HAIR SUTURES.—Dr. Fayrer says, in a recent work, "Well selected white hair out of a horse's tail is, in many respects, better than any suture hitherto devised. . . . That from the tail of a white or gray horse is the best. I hardly know why it should be so, but I find the white is better than the black hair. . . . The matter may appear a trifle, but it is, nevertheless, an important trifle, for if one can avoid the alleged inconvenience, and even danger, from suppuration, from the hemp and silk ligature, or the disadvantages of the wire, the subject is sufficiently interesting to be worthy of consideration.—*Canada Med. and Surg. Journal.*

BEFORE the delivery of the inaugural address at St. Thomas's Hospital, on Thursday last, Sir Francis Hicks, the treasurer, said that, at the annual distribution of prizes, it was customary to reward such students as displayed most proficiency in surgery and anatomy with a prize, in the shape of a valuable gold medal. He was glad to announce that an accumulation of money had arisen from funds placed in their hands some years back, and arrangements were now pending for the founding of a gold medal, to be awarded on similar conditions as the other, to the most proficient student in medicine.—*The Medical Press and Circular.*

ADIPOCERE.—During the last few days, the profession in London has had ample illustration of the process of conversion of muscle into that spermaceti-like substance known as adipocere, in the body of a woman which had been dredged from the Thames. After being imbedded in the mud for, probably, two or three years, upon rapping the body, it was hard and perfectly resonant, and the whole of the internal organs were converted into a solid mass, which, like the rest of the body, when cut into, had the consistence and appearance of hard, discolored wax. One leg was absent, which Dr. Worboys was of opinion still remained imbedded, the weight of mud having separated the parts when pulled up by the dredger. The head was resting upon the left hand, and the hypothesis is that the woman had laid down on the shore of the river at low water to sleep, or in a drunken state, and become suffocated.—*The Medical Press.*

BISMUTH AS AN EXTERNAL APPLICATION IN SKIN DISEASES.—The value of bismuth in alleviating the intense itching and irritation which accompanies chronic eczema and other forms of skin disease is less known than it ought to be. In some obstinate cases, in which the inflamed condition of the derma is aggravated and kept up by the constant scratching and rubbing which the patient finds it impossible not to indulge in, an ointment containing half a drachm of subnitrate of bismuth to the ounce of simple ointment, rubbed up with a little spirits of wine, gives great relief. It has been found to be far more efficacious as a soothing remedy than the benzoated, zinc ointment, more commonly used. Dr. McCall Anderson, in recommending bismuth, observes that the ointment must not be made with the benzoated lard, or the reverse of a soothing effect may be produced.—*The American Medical Weekly; Medical Times and Gazette.*

DIED.—In New Bedford, Mass., October 9th, of membranous croup, John Bradford, youngest son, and, October 27th, George Henry, oldest son, of Dr. John H. and Alice W. Mackie.

MORTALITY IN MASSACHUSETTS.—*Deaths in eighteen Cities and Towns for the week ending October 24, 1874.*

Boston, 140; Worcester, 12; Lowell, 13; Milford, 5; Chelsea, 6; Cambridge, 17; Salem, 10; Lawrence, 14; Springfield, 10; Lynn, 9; Gloucester, 13; Fitchburg, 3; Newburyport, 4; Somerville, 10; Fall River, 17; Haverhill, 5; Holyoke, 8; Pittsfield, 4. Total, 300.

Prevalent Diseases.—Consumption, 58; typhoid fever, 19; scarlet fever, 16; pneumonia, 14; cholera infantum, 13; croup, 7.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Oct. 31, 130. Males, 68; females, 62. Accident, 4; asphyxia, 1; bronchitis, 7; inflammation of the brain, 1; congestion of the brain, 3; disease of the brain, 7; cancer, 1; cyanosis, 1; cholera infantum, 4; cholera morbus, 1; consumption, 21; convulsions, 1; croup, 3; debility, 2; diarrhœa, 2; dropsy of the brain, 2; drowned, 1; dysentery, 2; diphtheria, 4; epilepsy, 1; remittent fever, 1; scarlet fever, 5; typhoid fever, 4; gastritis, 2; hernia, 2; disease of the heart, 6; hæmorrhage, 1; intemperance, 1; insanity, 1; disease of the kidneys, 1; laryngitis, 1; disease of the liver, 1; congestion of the lungs, 2; inflammation of the lungs, 9; marasmus, 7; old age, 6; paralysis, 2; pleurisy, 1; premature birth, 2; puerperal disease, 1; enlarged prostate, 1; pyæmia, 2; tumor, 1; imperforated urethra, 1.

Under 5 years of age, 53; between 5 and 20 years, 8; between 20 and 40 years, 25; between 40 and 60 years, 25; over 60 years, 19. Born in the United States, 88; Ireland, 32; other places, 10.

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Original Communications.

A CASE OF EXTRA-UTERINE PREGNANCY.

By E. WARREN SAWYER, M.D. (Harv.), of Denver, Colorado.

A FEW weeks since, Dr. Justice, of this city, submitted, for examination, a specimen of matter aspirated by him from an abdominal tumor—a supposed ovarian cyst. He stated that the tumor was of three years' duration, that he had decided upon an operation, and asked my assistance on the following day.

The patient lived at Boulder City, thirty miles from this place, among the foot-hills of the Rocky Mountains.

Grossly, the specimen looked like pus, but with the microscope not a characteristic pus corpuscle could be seen; only fat globules, of various sizes, and granular matter. With liquor potassæ, it behaved like pus, and rapidly gelatinized. Subsequently to the termination of this case, I learned the following details:—

Mrs. G., aged 37 years; married twice; two children by first marriage, three by the second; youngest child 5 years old. Has always enjoyed perfect health. Catamenia ceased March 28, 1871. Dates her pregnancy from that time. Had all the usual symptoms of pregnancy till the third month, when "colicky pains" began, slight at first, increasing in severity, and not ceasing throughout her gestation; at no time was she free from colic. During the fourth month, she swooned from the severity of this pain, and was confined three days to her bed. Felt the motions of the child, at the usual time, stronger than she experienced in her previous pregnancies.

On the 30th of December, 1871, was taken, at night, with regular labor-pains, the seat of which she referred to her left side.

I learned, from her medical attendant, that there was no dilatation of the os uteri, at that time, though the short neck was very soft; and, high up in the pelvis, the head of the child was felt. Her pains continued throughout two days, at the end of which, all signs of labor had subsided. Motions of the child were still strongly felt.

Three days afterward, her breasts became full and painful; large quantities of milk were pumped out with relief to her.

Twelve days after the first attempt at labor, regular pains again set in, which continued for a day, at the end of which, all motion ceased, after a most violent action of the child. Milk again appeared in her breasts, but gave no trouble.

There was no discharge of blood during either attempt at delivery, though, in both, the nurse declared there was a discharge of meconium; that she had seen meconium in previous confinements, and was able to determine this.

She left her bed after a day, and felt very comfortable. Her large figure was preserved till the following March, when a vaginal discharge of blood began, after which she found herself growing smaller. Hæmorrhage persisted for the next three months, slight at times, but weakening her, and confining her to her bed nearly one half the time. After a tonic treatment, wasting ceased, and from this period till June of the present year, her menses returned with the strictest regularity, and she called herself well.

As evidence of the immunity from discomfort which she enjoyed, during this long time, I have only to state that she assumed the entire charge of her large family, and indulged often in dancing at balls, of which she was passionately fond.

In June last, her catamenia did not appear, and she thought herself again in the family way. During the following month, a violent hæmorrhage occurred, continuing for forty-eight hours, during which it was thought she aborted. Soon afterward, she had a violent chill, and began to grow large. Chills recurred frequently and irregularly, followed by fever, till her death.

When I first saw her, August 17th, her face presented an emaciated appearance, with a bright red spot upon each cheek. Pulse 96, soft and compressible. Temperature normal. The dyspnœa was most evident. The abdominal enlargement was uniform, and as great as that of a woman at full term. Fluctuation was evident to the left of the median line in front, but not on the right side. My finger in the vagina could feel no cervix uteri, and the os could be felt only as a slight depression at the summit of a very long vagina. The sound could not be made to enter the uterus, though many curves of the instrument were tried.

Dr. Justice being still of the opinion that we had to do with an ovarian cyst, decided upon an operation, which was done jointly by Dr. Justice and myself. The anæsthetic (equal parts, by weight, of chloroform and ether) was administered by Dr. Dodge, of Boulder. An incision, some four inches in length, was made through the abdominal walls, in the median line, mid-way between the umbilicus and symphysis pubis. A large, reddish-purple globe now sprang into view. A hand, passed into the abdominal cavity, discovered this tumor attached to the entire circumference of the brim of the pelvis; the uterus was not felt; upon extending the incision downward, this organ was seen in the median line, more than twice its normal length, and bent abruptly over the upper border of the symphysis. The flexion of the uterus forward explained our inability to pass the uterine sound.

The tumor seemed to spring uniformly from the posterior surface of the uterus.

The intestines were pushed up by the cyst, and the omentum and small intestines were firmly adherent to its upper and posterior surface. No trace of either ovary or Fallopian tube was seen.

The needle of Potain's aspirator was plunged into the anterior wall of the cyst, and a little matter drawn; a large trocar was substituted, which drained away some two quarts of matter, some of which escaped into the abdominal cavity. A child could now be felt within the cyst. It was thought advisable to proceed, and an incision some four inches in length, was made through the anterior wall of the cyst, through

which a well-formed, female child, with umbilical cord intact, and the remains of a placenta were removed, with some three pints of matter. The cystic and abdominal cavities were now carefully sponged out; afterwards, one end of a skein, of some twenty threads, of ligature silk was passed from the cyst through the *cul-de-sac* of Douglass, out of the vagina. There was some troublesome escape of dark blood from the patulous vessels of the cut surfaces of the cyst, which was only arrested by passing a ligature with a needle beneath the mouths of the vessels; these latter looked quite like the uterine sinuses.

The wounds were now closed with deep (iron) and superficial (silk) sutures; the abdomen was well covered with cotton batting.

An enema of brandy was given twice during the operation, which consumed about one hour.

The patient did not rally, and died twenty hours afterward.

The fœtus was well preserved, very white and hairless; in fact, it had the appearance of a fœtus preserved for a long time in alcohol. Its weight was seven and one-half pounds. In extending the flexed forearm, the cuticle was cracked transversely at the bend of the elbow, showing the adipose tissue beneath very yellow and hard, like adipocere. The odor from the matter and child was slightly nauseous, but no odor of putrescence was noticed.

ON ERYSIPELAS.

By J. C. Gleason, M.D., of Rockland, Mass.

Read before the Plymouth District Medical Society, October 14, 1874.

The appearance, during the spring and earlier summer months, of an unusually large proportion of cases of erysipelas in my practice, occurring, as I believe, epidemically, led me to observe what I could of the nature, course and proper management of this disease.

Erysipelas is described by most modern writer under two forms.

I. *Sporadic, or Idiopathic*, which arises from internal causes alone, and which usually attacks the integument of the face, though no part of the surface of the body is exempt from it. The skin alone, or more commonly, the skin and areolar tissue are involved, the affected part becoming of a deep red color, hot, painful and swollen. The disease was known in early times, in Scotland, as "the rose;" in England and in this country as "St. Anthony's fire."

II. *Traumatic Erysipelas*, that which follows a wound, and may occur in any part, as an unhealthy, low inflammation, tending to spread in all directions.

Both these varieties are usually announced by marked constitutional symptoms—chills or chilliness, pain in the back and limbs, nausea, and sometimes vomiting. Soon, the tongue becomes coated, and shortly, if not at first, typhoid symptoms are developed, delirium and ataxia.

As to the distinction which has been made between simple and phlegmonous erysipelas, so called, it may be well questioned whether some writers have not confounded phlegmonous inflammation, which often developes itself beneath an erysipelatous surface as a complication, and which frequently terminates in suppuration, with true erysipelas, which never, of itself, suppurates, unless we except some

cases in which are developed a few small abscesses, not truly phlegmonous in character. The duration of erysipelas is less on one spot than that of phlegmonous inflammation.

Velpeau says, erysipelas is best described as a sheet of inflammation, which, lasting only four days in one place, travels on, spreading itself out farther and farther above the tissues, whose deeper layers are not attacked by it, even though they may suffer from phlegmonous inflammation. To use his figure, it is something like a rising tide, which encroaches more and more upon the shore, only differing in this, that it never ebbs.

Thus it is a true dermatitis. Attention to this particular will aid to determine whether we have erysipelas, or simply a phlegmon of greater or less severity.

I have often verified Prof. Velpeau's statements by finding that desquamation will begin to take place in four days at the point where the erysipelas first made its appearance, while, meanwhile, it may be invading new portions of the surface, and the whole course of the disease may, and, in fact, usually does, last from eight to ten days, or may even be prolonged to six weeks. In any case, it will continue till the poison which has caused it is eliminated, and, during its course, large portions of the surface may be traversed over.

Within a year, I had a patient, a lying-in woman, who had had mammary abscess, resulting from exposure, and afterwards pneumonia, who, during her convalescence from the latter disease, while yet unable to sit up more than fifteen minutes twice a day, began to have slight shiverings, anorexia, delirium, rapid pulse, slight amblyopia—symptoms which, in a day or two, were explained by the appearance of erysipelas covering nearly three-fourths of the surface of both arms, and extending upon the chest.

The eruption subsequently appeared upon the side and one hip, and lasted in all some eight to ten days, travelling, in the time, over quite a considerable portion of the surface of the affected side.

This case, I remember as a good illustration of the spreading of this affection, the parts first attacked having been restored while the disease was invading new portions of the cutaneous surface. I also noted well the truth of Velpeau's statement, that just four days were required before the affected tissues began to return to health.

Before proceeding to treat of the truly epidemic variety of this disease, or what has been by some described as erysipelatous fever, and which deserves special consideration, I wish to speak of the terminations, causes and diagnosis of this disease.

When erysipelas terminates favorably, it is either in resolution, by desquamation of the cuticle with slight œdema, or by forming large bullæ or vesicles from effusion of serum under the cutis, which sometimes are followed by some small, rather superficial abscesses, points of a phlegmonous character. When a fatal termination occurs, it may be from extension of the inflammation to the brain, or its membranes, giving rise to effusion and coma, or, in some cases, the larynx becomes inflamed, and œdema of the glottis causes death by suffocation. In the larger proportion of fatal cases, death is owing to failure of the vital powers, as a result, not of the inflammation, but of a true blood poisoning by morbific atoms, the toxic character of which is not yet fully known. Yet, although the exact nature of the poison may not

be known, we may conjecture that in all the zymotic diseases, as erysipelas, typhoid fever, and the like, the principle of infection or contagion acts in the blood as a ferment, a true catalytic agent, capable of inducing extensive and disorganizing changes in the composition of the blood itself. *Pari passu*, with the elimination of the poison, and the restoration of the blood, comes the abatement of the inflammatory symptoms and return to health.

Of the sources whence this poison is derived, that is, just what may be the exciting cause or causes of this affection, we can only say that they may be nearly or quite like those which are by some thought to produce typhoid fever, viz., atmospheric influences, bad drainage, foul and unhealthy habitations, disordered secretions, insufficient diet, and the poison engendered by over-crowded dwellings—in fine, any and all of the usual sources of epidemic diseases, may cause this.

Druitt suggests that the probable cause of the milder, isolated and non-contagious cases of erysipelas is some morbid state of the blood, generated in the system itself, through the combined influence of disordered secretions and atmospheric conditions, while the severe and contagious form must arise from some more decidedly poisonous source.

In large hospitals, where numbers of the sick are crowded together, and, of course, much that is noxious and poisonous is derived from their bodies, breath and excretions, we find erysipelas in its most malignant and fatal form, and often, apparently by being carried from the place of its origin to the lying-in wards or chamber, the most terribly fatal results have followed. Many cases are cited to show that the contagion of this disease may cause puerperal peritonitis.

Diagnosis.—This is usually not difficult, after the local inflammation occurs. The disease has certain pathognomonic signs, which should, however, be thoroughly known, so that, at all times, the inflammation may be distinguished from erythema and lymphatic or diffuse inflammations, which comprise all, or nearly all, the cases that one would be likely to misapprehend.

First, there is upon the outer limits of the disease a red, festooned border, slightly in relief, which can be perceived by lightly passing the finger over it. Beyond this border, the tissues are healthy, while the redness is greatest at its edge. From the centre to the circumference, the redness increases, and is more marked at the circumference. This is pathognomonic. Again, erysipelas often commences without wound or excoriation; lymphatic inflammation, never. Erysipelas spreads itself out in sheets in all directions; lymphatic inflammation appears in patches, following, always, the direction of the lymphatics, that is along the axis of the limb. Other inflammations never leave the point of origin, except slowly, while the part where erysipelas commences is usually healed when the affection has involved parts further along. Other inflammations often terminate by abscess; erysipelas never, unless it becomes phlegmonous, which, according to Velpeau, is a complication. Again, we must notice the fact that while local treatment may put an end to other inflammations, it will never stop erysipelas.

I wish now to speak of a variety of this disease, of which Flint, in his practice, treats as a form of continued fever; having the local inflammation in a proportion of cases, it has, for want of a better name,

been characterized erysipelatous fever. It may occur sporadically, or as an epidemic, commonly as the latter. It is to be distinguished from erysipelas, occurring as a surgical or a local affection, because, in the former affection, the febrile disturbance is primary or essential, while in the latter form it is symptomatic of the local inflammation, in that it accompanies it. Moreover, in the epidemics of erysipelatous fever which have been studied, as in the one which prevailed so extensively in many portions of this country, from 1841 to 1846, it was found that the local manifestation of the erysipelas, as an inflammation, was by no means constant in all cases. On the contrary, there were great variations at different times and places.

Dr. Bennett, of Bridgeport, Conn., in 1853, wrote an article, which appeared in the *New York Journal of Medicine* for July of that year, stating that he observed erysipelas in only one-sixth of 150 cases. When it did occur, the head was oftenest the seat of the local erysipelas. In nearly all, marked ataxic symptoms, passive delirium and great debility were observed; in fact, a truly typhoidal state. In some localities, it prevailed quite extensively, and the mortality was large. It was called "black tongue" by some writers, from the appearance of the tongue commonly observed. It did not appear to be transported, or to travel from place to place, but often appeared in isolated sections; its course, in general, "was irregular and erratic," although Dr. Bennett states that it seemed to follow the streams and water-courses in his section.

The attack was often sudden, beginning with a chill, pains in the limbs, and, usually, great prostration. Inflammation in the pharynx occurred in all the reported cases. Sometimes, it was very severe, and involved the larynx, giving rise, in some cases, to œdema of the glottis, and death by suffocation. Tonsillitis and inflammation, and suppuration of the lymphatic glands of the neck also occurred occasionally, as a complication.

Pneumonitis, pleuritis, acute inflammation of the peritoneum, as well as of the cerebral meninges, were also noted by different observers in some cases. In yet others, petechial spots and abscesses, without local erysipelas, were observed.

Cases varied much as to severity and duration, some mild ones ending in six to eight days; while others, because of some severe complication, either ended fatally, or were indefinitely prolonged.

A most important fact noticed during the epidemic of 1841 to 1846 was the prevalence of puerperal fever, which so uniformly appeared in conjunction with this epidemic as to show some pathological connection between the two diseases. Many held the belief that the peritonitis was caused by a virus carried by the physician from a case of erysipelas, or erysipelatous fever, to the puerperal woman. I have no doubt, from what evidence I can gather, that this transportation can take place, and I would be unwilling to attend a midwife's case the same day that I had visited a patient with erysipelas.

But to return: Flint says, remarking upon this point, "Assuming that this is true in certain cases, still puerperal peritonitis was by no means uniformly to be accounted for in this way. A rational explanation, in many, if not all, cases is, that labor acted as an exciting cause, and determined the situation of the local affection in those predisposed to the disease from the action of the epidemic influence."

The *mortality* from erysipelas in England alone averages, according to recent authorities, 2000 annually.

Treatment.—This must be conducted on the principle of leading the disorder to a safe termination, rather than on any attempt to arrest it by active remedies.

Mild cases will need but little medicine. In all cases, we need to remember that we have a poison to be eliminated, and a condition of more or less debility, a result of the blood degeneration which this poison induces, to be combatted. Hence, in addition to putting the patient into a well-ventilated apartment, giving him, at the commencement, cooling drinks, and light, but nourishing, diet, we may administer, as an eliminative, a full dose of one of the neutral salts, with a little rhubarb. After operation of this cathartic, we may usually begin with our plan of "tonic treatment," for it is a well-established fact, to-day, that this places the patient in the most favorable condition for recovery. Constitutional treatment, on the restorative plan, is his greatest need, for erysipelas kills, if it kills at all, as a general or constitutional disease, and not from the severity of the local inflammation. To this end, we give beef-tea, milk, wine, sulphate of quinine in tonic doses, or, if the stomach will bear it well, the muriated tincture of iron. The latter remedy may often be profitably given in pretty large doses, well diluted with sweetened water. In cases of great debility, brandy or brandy punch may be freely administered.

Locally, I believe that of all applications, fomentation by flannels wrung out of a hot decoction of poppy-heads, assiduously applied, as recommended by Dr. Tanner, of London, is the best. Cold lotions are sometimes agreeable, but, as a rule, I think that warm applications, if not safer, are, at least, more generally followed by greater relief.

Instead of the decoction of poppy-heads, hot water with tincture of opium answers the purpose.

Some surgeons, especially English, recommend painting the surface with collodion, which not only serves to protect the skin, but to contract the congested cutaneous vessels, and thus preserve their integrity.

As to preventing the extension of the inflammation by painting upon the sound tissues around the diseased part, I have seen it fail oftener than otherwise. Velpeau says, *treatment does not, will not,* stop erysipelas, though it may put an end to lymphatic and other forms of inflammation.

The disease is self-limited, and when the morbific atoms which cause it are eliminated, the symptoms cease and health returns, unless there is some complication. In the phlegmonous inflammations, which so often complicate erysipelas, so soon as pus is suspected, or a sensation of quagginess in the tissues is noted, or vesications appear on the surface, sufficiently free incisions are absolutely demanded, to allow the exit of sloughs and purulent products. The free use of tonics, food and opiates is to be enforced in such cases.

In case of infantile erysipelas, the child's strength must be supported by abundant nourishment, tonics and stimulants. In unhealthy infants, a slight wound may cause the development of this disease. In 1861, two infants were reported to the Registrar General of England to have died from erysipelas following vaccination.

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. Wadsworth, M.D.

Choroiditis Syphilitica.—Förster (*Graefe's Archiv*, xx. 1), describes under this title a disease, the objective symptoms of which accord with those usually known as typical of syphilitic retinitis. Faint greyish discoloration of the central portions of the retina, delicate, dust-like opacity of the central and posterior part of the vitreous, slight alteration of the retinal vessels, and want of clearness of outline of the nerve are the main points. The dust-like opacity of the central parts of the vitreous he regards as a very important and nearly constant symptom, and to this vitreous opacity are to be referred in part the apparent changes observed in retina and disc. Lack of contrast between the color of the disc and that of the choroid, partly on account of the greyish tinge of the retina, partly from the increased redness of the disc, serves also to make the outline of the latter indistinct. While, however, faint dust-like opacity of the vitreous is the typical form, there may be membranous opacity also, and in some cases opacity sufficient to prevent any recognition of the papilla.

In many cases there are also circumscribed changes in the color of the fundus, generally to be made out with difficulty, situated most frequently in the region of the macula, and usually in the form of groups of light red or whitish dots, sometimes as larger pale grey spots. But as these objective symptoms are by themselves relatively little characteristic, Förster considers the exact knowledge of the subjective symptoms of particular importance, and it is to these especially that he calls attention. The vision may be, in lighter cases, only little decreased, but is, on the other hand, often much sunken, even to $\frac{1}{100}$, without the ophthalmoscopic changes being necessarily very great. In such case, the remarkable difference between the visible change and the amount of sight is due to defects in the central portion of the field of vision. The defects have usually the peculiarity that, at the point of fixation, a tolerable degree of perception exists, which increases by bright light, but by diminished light markedly sinks. They thus assume in some measure an irregular zonular form, the most central portion of the retina being affected to a less degree than the parts about it, while the peripheral portions still perform their functions. The central defect may take the form of a half ring about the fixation point, or may reach in one or more directions to the edge of the field of vision, and thus leave islands in the peripheral parts of the retina still capable of vision,—a condition found more frequently as the final result of this disease than of any other. In the beginning of the disease, small, isolated, peripheral, or sector-like defects are, also, often to be discovered. The defects need not early in the disease cause an unfavorable prognosis; they may appear, increase, and again diminish, within a few days, change their position, or remain for a long time. They seem to be seldom wanting, and are evident to the patient as a shimmering spot in the field.

Another very constant symptom is hemeralopia. This is often apparent even by daylight, from the fact that a very much smaller type

can be read when held close in front of the window than when the light does not fall directly upon it. With yet weaker light the symptom is more glaring, and some patients cannot distinguish the movement of the hand at a distance of a foot with an illumination by which a normal eye makes out III. Sn., and yet by daylight can read IV. or at least VIII. Observations, made by means of an instrument for determining the least amount of light required to distinguish a given object, show, perhaps, even more plainly the rapid decrease of vision with weakened light of the diseased in comparison with a sound eye.

A very constant symptom, also, is the presence of subjective appearances of light of definite character. These are generally but not always in the neighborhood of the fixation point, and consist of bright, transparent patches, not often numerous, which have a tremulous, vibratory or rotatory motion. They have a certain relation to the defects in the field of vision, and it would seem that when they are present, defects, demonstrable at least by diminished illumination, are never wanting; and when, in the earlier stages of the disease, evident defects exist, the photopsies always are observed. Still they do not necessarily coincide with the defect. The latter may increase or diminish within a short time without the change being evident in the light-appearances. They may diminish or disappear under appropriate medication and confinement to a dark room. They may disappear on perfect quiet in bed, but any movement or excitement which increases the heart's action calls them out again. They must therefore depend on conditions of circulation in the retina or choroid, not on irritation of nervous elements by exudation, &c. Exposure to bright light increases their intensity. The symptom is moreover very persistent and may continue for years, even when the disease is over and vision has much improved.

Micropsy is sometimes observed, usually only when one eye has been affected, occasionally when both have suffered, and then is specially noticed in the worse eye. As a rule, this symptom is first observed when the disease has pretty well run its course. The difference in the apparent size of objects to the two eyes may be great. That the micropsy is due to change in the retina, *i. e.*, in the relative position of the rods and cones, and not to interference with the accommodation, is shown by the fact that it is sometimes more evident as the distance of the object is increased, and also by the apparent bending in toward the point of fixation which the patient observes on a series of parallel lines.

The accommodation is often diminished during the disease, but in many cases the diminution of vision is too great to allow this point to be determined. Seldom are there means of knowing with sufficient exactness the previous range of accommodation of the patient.

Complication with iritis occurs once in 6 or 8 cases. The iritis may precede and the choroiditis follow immediately, or only after six months or longer, when old synechiæ are the single sign of the previous affection. The choroiditis may appear first and extend to the iris. In this case there is much opacity of the vitreous. Synechiæ, even though numerous, are thin and yield to atropine, and the pupil before the use of atropine, and spite of the synechiæ, is somewhat dilated. There is no tendency in the iritis to become chronic, and the prognosis, so far as the iritis is concerned, is good.

That the disease is a choroiditis rather than a retinitis, Förster believes is shown by the not infrequent complication with iritis, iritis being often observed in connection with choroiditis, but not with retinitis; by the symptom of hemeralopia, which is wanting in affections of the opticus and anterior layers of the retina, but found with inflammations of the choroid; by the opacity of the vitreous, nearly always present with choroiditis, seldom with retinitis; by the diminished accommodation, also associated with choroidal, not with retinal, affections; finally, by the changes visible in the choroid and retina after a long and unfavorable course of the disease, which can only be referred to a choroiditis. The choroid is the organ which is affected first, though the functional disturbances of the retina prove that it also invariably is implicated. Nor is it denied that a pure retinitis may be excited by syphilis.

The disease varies much in its course. In general, the disturbance of vision comes on slowly, during weeks or months, but it may develop to a high degree within a few days. It yields to suitable treatment, at least to a certain degree, but shows a great tendency to recurrences, the commencement of which often cannot be detected by the ophthalmoscope.

Complete recovery takes place seldom and only when the case has been light and early subjected to treatment, but vision may slowly increase for years. In most cases, vision of $\frac{3}{4}$ or $\frac{1}{2}$ may be reached. It remains below this only in severe cases where large central defects in the field have appeared and treatment has been interrupted. Here changes in the fundus can always be discovered at a later period: often, dense or thread-like opacities in the vitreous; disappearance of the pigment of the epithelial layer over larger or smaller patches, or of the stroma of the choroid; black masses of pigment of various form; more or less marked atrophy of the retina, recognizable from the scanty and small vessels and homogeneous yellowish-white discolorations of the papilla; more seldom, rounded or stellate white spots, particularly in the region of the macula. In the worst cases, there remains a high degree of amblyopia with only isolated patches of retina which still retain their function. The disc and vessels appear as in retinitis pigmentosa, and there are deposits of pigment which often resemble those found in that disease, but do not seem to bear the same relation to the retinal vessels.

Regarding the etiology Förster says, "Where the above given objective and subjective symptoms are present, one may diagnose syphilis with the same amount of certainty as one diagnoses renal degeneration from the ophthalmoscopic appearances of retinitis morbi Brightii, only the confirmation by the patient does not usually follow with the same honesty that the chemical examination of the urine always affords." In every case which remained long under observation, he was able to confirm the diagnosis by the confession of the patient or other evidence. The choroiditis does not occur among the earlier symptoms of secondary syphilis; seldom so soon as four or six months after the primary infection. In more than half the cases, other secondary symptoms are present, or their traces can be made out.

It is proportionately frequent in the latter half of life; of fifty-five patients, twenty-four were above forty, fifteen above fifty years of age. In hospital practice, Förster found the number of men and women af-

fected about the same, together 2.5 per thousand patients. In private practice, among the well-to-do classes, the number was 4 per thousand, and 90 per cent of these were men. The greater frequency of the disease among the well-to-do is however only apparent, since the proportion of these with troubles of the conjunctiva or cornea who came under his treatment was much less, and therefore the percentage of other affections much greater than with the poor.

The administration of mercurials, with detention in a darkened room for at least four weeks, is the only treatment which always promises a good result, and of the different methods of giving mercury inunction is decidedly the best. "All those cases, in which the first course of treatment radically removed the disease, had employed inunction till salivation was produced, and remained in a darkened room."

Trichinosis produced by the Meat of a Dog.—In January, 1874, a woman was admitted to the hospital in Langensalza, suffering from very grave symptoms, all pointing to the existence of trichinosis, and upon subjecting a small excised fragment of the deltoid muscle to the microscope, numerous encapsuled parasites were readily detected. This being the only instance of the disease known to have occurred in the vicinity at that time, the attempt was made to elucidate the source of the infection, which resulted in extracting from the patient the following extraordinary statement:

For many weeks previous to her illness her extreme destitution had prevented her from purchasing any meat of any sort, nor had she been able to buy any fat, nor any other portion of a hog. Her meals were all prepared at home, her food consisting of dogs, cats, and also, during the season, marmots and foxes. The only meat which had been brought into the house for many weeks consisted of a pair of cats, the greater part of which was still left, having been smoked, and a dog which had been sent her for culinary purposes by a neighbor. This animal appeared very fat, and upon killing him she observed that a quantity of yellow fluid was contained in the thoracic and abdominal cavities, and that the meat, which was of a very pale color, could be pressed together like a sponge. Although the animal did not appear to her healthy, it was, nevertheless, dressed, cooked and eaten. In a few hours after the meal, nausea and purging set in, which left her upon the following day extremely prostrate, and swelling of the face and inflammation of the eyes rapidly ensued.

The remaining supply of cat-meat found in the house was examined and found free from trichinæ, and the conclusion was therefore formed, that the woman had unquestionably become infected by consuming the flesh of the diseased dog. She was restored to health at the expiration of four months.—*Correspondenz-Blatter des Allgem. aerztl. Vereins von Thuringen*, No. 9, 1874.

Fracture of Seventh Cervical Vertebra.—Some time ago a patient entered Bellevue Hospital with complete paralysis, and on examination the spinous process of the vertebra prominens was found to be fractured.

The general paralysis soon improved, but in the right arm the paralysis yet persists.

The inference is, that there was an extravasation into the meninges at the place of fracture, together with injury to the trunks of some of the nerves going to form the brachial plexus on that side.

The patient received the injury by being thrown down and striking on the head and neck.—*N. Y. Med. Journal.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. F. B. GREENOUGH, M.D., SEC'Y.

SEPT. 28th.—*A Case of probable Lead-poisoning, resulting fatally, from a Bullet Lodged in the Knee-joint Twelve Years previously.*—DR. ELLIS said that he had seen the patient twice in consultation with Dr. Harris, of Arlington, first in June, and again in July. Twelve years ago, the patient had been wounded in the knee, being hit from the front, while his knee was flexed; the bullet was never extracted, but the wound healed, and the patient had full use of his leg. In February, he began to be troubled with the complaint for which Dr. Ellis saw him, namely, severe attacks of colicky pain in the abdomen, always preceded by obstinate constipation, and accompanied with vomiting. He had been to Florida last winter, and while there had one of these attacks. When he returned, he stated that his bowels felt to the touch like a mass of sausages. Dr. Ellis saw him a second time in July, when the symptoms complained of were the same, viz., obstinate and constant constipation, pain amounting to colic in the lower part of the abdomen, which, however, was never followed by any soreness, and occasional vomiting of bilious-looking matter, which was never offensive; he never threw up his food. From these symptoms, which were the only ones complained of, Dr. Ellis thought the case must be one of obstruction of the bowel from some cause. He called upon Dr. Harris, who was present, to state what additional facts he knew with regard to the case.

DR. HARRIS said that a week after seeing Dr. Ellis for the last time, the patient had an epileptic convulsion, which was followed by a second one, and after that his mind never seemed to be quite right. The convulsions continued at intervals, and the constipation was very obstinate, so much so that Dr. Wyman, who saw the case in consultation, thinking that there must be obstruction of the bowels, inflated him, and found that at least there was no obstruction that was not pervious to air. He subsequently became violently delirious, and died. About six weeks before death, a blue line was noticed on his gums. The possibility of its being a case of lead-poisoning was considered, and eliminated, from the fact that careful search failed to show any possible way by which lead could have entered the system.

DR. ELLIS showed the lower end of the femur. A large, conical, leaden bullet was imbedded in the inner condyle, its base being exactly level with the articular cartilage, its longest diameter parallel with the shaft of the bone between the two condyles. The exposed surface of the base was smooth and polished, and, evidently, must have rubbed against the cartilage covering the head of the tibia with every motion of the joint. There was no evidence of any recent inflammatory action, in either the bone, cartilages or synovial membrane, except, perhaps, that the head of the tibia opposite the foreign body was eburnated. Some of the loose connective tissue in the neighborhood of the bullet was slate-colored. Dr. Ellis said that he considered this case as an unique one. As far as he knew, there were no cases reported of lead-poisoning from bullets lodged in the tissues; but the circumstances of this case were certainly such as would prove the

absorption of the soluble salts of the metal. There was a surface of lead, exposed to constant attrition, in a synovial cavity where there was a constant secretion and absorption of fluid, and this was, certainly, a very different case from that of a bullet being imbedded in muscle or bone.

Dr. Fifield, who had also seen the patient, after Dr. Ellis, in consultation, said that at the time he saw him he had had two convulsions, of an epileptic character, and that he was beginning to grow dull in his intellect. He was struck with the extreme anæmic look of the patient, and also noticed a peculiar stagger in his gait. There was a marked blue line on the gums of both jaws, but the power of grasping did not seem to be diminished. He had considered it, undoubtedly, a case of lead-poisoning, although he was not told of the wound until afterwards.

Oct. 12, 1874.—*Aneurism of the Aorta.* Dr. Shattuck reported the case.

Sept. 26th.—M. W., æt. 35, single, painter, entered the hospital, from Charlestown, Mass., this morning, about ten o'clock, with urgent dyspnœa, face cyanozed. Said to have been well up to three weeks ago, since which time he has had frequent attacks of dyspnœa, gradually becoming worse. Had six attacks yesterday, lasting fifteen or twenty minutes each. Great difficulty in talking. Respiration noisy, so that thoracic examination is almost impossible. In all parts, percussed resonance seemed to be normal, and at intervals there seemed to be heard some râles. Pulse 100; weaker in left than in right radial. No pain.

Had morph. sulph. grain $\frac{1}{6}$, subcutaneously, with some relief, but distress and labor of breathing were still great. About 3 o'clock, he was seized with a severe paroxysm, which lasted seventeen minutes. Lips and face blue, almost black, veins distended. Loud rattling in respiration. Had taken of morph. sulph. gr. $\frac{1}{6}$, and inhaled nitrite of amyl. The latter seemed to give some immediate relief and comfort. Slept for a time, after being relieved, though breathing was still somewhat noisy. Swallows with difficulty. Tongue has white coat. Evening, temperature 103·8°. Pulse 98. Took whiskey, ℥i. only.

27th.—Had a similar attack, exceedingly severe, at 2, A.M., and one less severe at 4, A.M., each lasting about twenty minutes, for which he had morph. sulph. gr. $\frac{1}{6}$ only. Took, during the night, milk, ℥xx., and whiskey ℥iv., and swallows more easily than yesterday.

Morning, temperature 103·8°. Pulse 100. Lying on side, or sitting nearly upright in bed. All the respiratory muscles in violent action. Veins of neck distended. Respiration frequent and noisy. Exploration of thorax difficult and incomplete. Râles over both sides, and respiratory murmur. Some pulmonary resonance over both sides. Pulse regular. First sound of heart, clear. Morphia, gr. $\frac{1}{8}$ twice in forenoon, the first time with relief, but not the second time. Inhaled nitrite of amyl. Pulse, M., was 120, and growing weaker. Had brandy by mouth and rectum, as swallowing became difficult, but continued in about the same state. Respiration noisy and labored till about 3, P.M., when he died.

Autopsy by Dr. Fitz.—*Post-mortem* rigidity very marked. Numerous old adhesions of the pleuræ of both lungs, which, in lower cavity,

were so strong that the lung tissue was torn in removal. About four ounces of serum in right pleural cavity.

About one ounce of serum in pericardium. Tumor above heart adherent to sternum in front, and pressing on trachea behind. Fresh adhesions between both lungs and tumor. Lungs almost covering tumor in front, except a space about three-fourths of an inch in width.

Spleen enlarged, congested, adherent to under surface of diaphragm.

Kidneys rather flaccid, capsule peeling easily; about normal in size, congested.

Liver so congested as to present the nutmeg appearance.

Stomach normal.

Intestines not examined.

On opening the tumor, three distinct sacs were seen. The mucous membrane lining the trachea showed some points of ulceration.

Dr. Jackson said that the case was an interesting one, from the fact of there being three distinct aneurismal sacs; two were not unfrequently found.

The fact that the lining membrane of the trachea was ulcerated was extraordinary, as the tumor did not come in contact at all with that organ. He had often seen and spoken of an ulceration of the mucous membrane of the trachea, and also of the œsophagus, when these organs were in contact with an aneurismal tumor, and referred to the fact that in such cases nature seems to act contrary to the usual rule of striving to prevent the ill effects of any lesion or disease, as this ulceration seemed, evidently, to be the commencement of an effort to establish a communication between the aneurism and the trachea, or œsophagus, as the case may be. The duration of the disease in this case was also remarkable for its shortness, as he had been able to work up to four weeks before death, and the symptoms had not certainly shown themselves more than six months before the end. As the tumor did not press upon the trachea, the dyspnœa, which was so urgent in this case, must have been due to pressure on the recurrent laryngeal nerve. He also spoke of the fact of there being no structural change in the heart itself, although there was such extensive disease near it that it seemed impossible that its function should not have been seriously interfered with. He had repeatedly found this to be the case before.

Dr. Fitz said that from the character of the walls of the aneurism, and the absence of that taut, firm condition usually found in sacs of slow growth, one would infer that in this case the growth must have been very rapid, the truth of which inference was also borne out by the clinical history.

Tœnia Dislodged by Emulsion of Pepo.—Dr. Draper exhibited a tænia, including the head entire, which had been dislodged from the intestines of a man aged 28 years. The remedy used was the bruised seed of the pumpkin made into an emulsion and given, upon an empty stomach, in drachm doses, at intervals of an hour until four doses had been taken. The administration of the seeds was followed at once by a cathartic, two drops of croton oil in a pill. Within an hour, there were four loose dejections, with the second of which the present specimen came away in three sections. The patient had passed sections of the parasite during the last seven years, at long intervals.

Dr. White said that the head in this case was darker than he had

ever seen it. As a practical point, it was very extraordinary how a tapeworm, after resisting almost every kind of treatment, would finally be killed by a dose of something. The joints of the tænia solium and medio-cannellata are the same, the only difference between them being in the head. The medio-cannellata has no beak between the four circlets as the solium has, but there is rather a depression there; the head is also darker, containing more pigment.

Twin Fœtuses of Different Size.—Dr. Wheeler reported the case, and showed the specimens, which had been expelled by a woman six weeks after an unsuccessful, as she thought, attempt to produce an abortion by means of a catheter. Five weeks after the attempt, she was seized with inflammatory symptoms, pointing to the uterus, and called in a physician, who found the os somewhat dilated, and a portion of a funis protruding. He tried, without success, to dilate the os, and watched the case for a week, at the end of which time the specimens were expelled. The patient supposed herself to be about four months pregnant, and one of the fœtuses was at about the stage of development, and of about the size, that would show the correctness of the calculation. It was of a bright scarlet color, looking as if fresh blood had been extravasated under, or into, the epidermis. The other was hardly a quarter as large and natural in color.

Dr. Wheeler said that the specimens were interesting, as they suggested the question whether the difference in size was due to an arrest of development and growth of the smaller one, by the attempt to produce abortion, six weeks before, or whether it was a case of superfœtation. As the membranes were ruptured before she was seen by the physician, it could not be determined whether they were contained in a single amniotic sac, or whether there were two sacs, one for each.

Sulphite of Lime for Cider.—An eminent preacher, in a recent address before an agricultural association, said that he did not advocate the making of cider, but if his hearers *would* make it he advised them to "make it *good*." If made good and *kept* good—that is, checked at the right point in the process of fermentation, and prevented from becoming "hard" and alcoholic—it is a beverage to which few, even of those who hold extreme views on the temperance question, will make serious objection; and there is no doubt that this desirable consummation may be effected by the judicious use of the neutral sulphite of lime. The experience of those who have tested it for this purpose during the past sixteen years is unequivocal upon this point. It is important, however, to remember that its only action is to *arrest* fermentation, not to counteract it after it has once taken place. No backward step is possible in this process of natural chemistry, any more than in that of decay, to which it is analogous. You may keep a ripe apple sound for months with proper care, but if it once begins to rot there is no restoring it to soundness again.

Some two years ago, one of our western correspondents recommended the use of the sulphite for preserving fruits. His directions for the process, which we reprint for the benefit of those who wish to try it, were as follows: "Use two teaspoonfuls of sulphite of lime to one gallon of fruit, with the usual quantity of sugar. Put in the lime while the fruit is heating, in order that any impurities in fruit or sugar may rise to the top and be removed. Fruit thus prepared, put in jars and stored in a cool place, will keep for months."—*Boston Journal of Chemistry.*

Bibliographical Notices.

Health and Education. By the Rev. Charles Kingsley, F.L.S., F.G.S., Canon of Westminster. New York: D. Appleton & Co. 1874. Pp. 411.

We owe an apology to the publishers of this book, as well as to our readers, for the length of time we have left it unnoticed. Suffice it to say that the delay was caused by a combination of accidents for which we are not responsible.

The book is a collection of essays and addresses, most of which have more or less of a medical bearing. The attractive style will procure it many readers, who, we hope, will profit by the practical wisdom it contains. On some points, we see statements concerning disease, which a medical man would probably advance rather more cautiously; but they are not of a nature to do harm, and it would be hypercritical to dwell on them in reviewing a popular work.

The Canon is a reformer, and a radical one, with but little respect for customs venerable only by antiquity; one inclined to make the most of the present, and hopeful of the future. One of the best chapters is an address on the "two breaths," namely, that we take in and that we give out, and is naturally a strong plea for ventilation. In it, the author says: "And if any excellent person of the old school should answer me, 'Why make all this fuss about ventilation? Our forefathers got on very well without it,' I must answer that, begging their pardons, our ancestors did nothing of the kind. Our ancestors got on, usually, very ill in these matters; and when they got on well, they had good ventilation in spite of themselves. First, they got on very ill. To quote a few remarkable instances of longevity, or to tell me that men were larger and stronger, on the average, in old times, is to yield to the old fallacy of fancying that savages were particularly healthy, because those who were seen were active and strong. The simple answer is, that the strong alone survived, while the majority died from the severity of the training. Savages do not increase in number; and our ancestors increased but very slowly for many centuries."

This lecture was delivered to an audience of ladies, and we regret that we have not space to quote the remarks on tight-lacing. The ladies must have thought the lecturer a very bold man. He certainly does not flatter them, and is particularly severe, in the "Lower Education of Women," on their want of physical development, and consequently of animal spirits, criticisms which, we own, we are surprised to see applied to the girls of "Old England." His picture of young ladies at a watering-place, sitting near the seashore, "enjoying, like so many flies upon the wall, the novel art of doing nothing," is as suggestive as if it were represented by lines instead of words. Further on, he says: "It is proposed, just now, to assimilate the education of girls more and more to that of boys. If that means that girls are merely to learn more lessons, and to study what their brothers are taught, in addition to what their mothers were taught, then it is to be hoped, at least by physiologists and patriots, that the scheme will sink into that limbo whither, in a free and tolerably rational country, all imperfect and ill-considered schemes are sure to gravitate." But he goes on to wish that sports not identical with, but analogous to, those of boys, might be used to give exercise and health to girls, and, with certain restrictions, the plan has something in its favor.

It was not our purpose to attempt to bring to light all the merits of the book, nor such faults as it possesses, but simply to give an idea of its nature, and this, we hope, may be gained from the above extracts.

BOOKS AND PAMPHLETS RECEIVED.

Handbook of Practice, employing Concentrated Medicines as prepared by B. Keith & Co. New York. 1874. Pp. 143.

Boston Medical and Surgical Journal.

Boston: Thursday, November 12, 1874.

In spite of our prophecy in the last Journal, we are absolutely astonished at the extent to which it has been fulfilled. Before the election, when writing on prohibition, we expressed our belief that the "farce was nearly played out," that "people were beginning to appreciate that the opinion of a candidate on a question of this nature is more important than the name of his party," and that "if this year does not rectify the abuse, another will." The result has been more than we dared to expect, for there is now no doubt that the coming legislature will repeal the present prohibitory law and destroy the wicked machinery by which it is not enforced. Without entering into a political discussion, we may say that the chief cause of Mr. Talbot's overwhelming defeat was his veto on the act to abolish the State Constabulary—a force so openly corrupt that, as juries have often shown, the mere fact of belonging to it makes the members' testimony under oath of little or no account. The coming legislature is largely anti-prohibition and we may expect a radical change of affairs. We rejoice at the prospect, and, let it be understood, we rejoice as the friends of temperance. We have repeatedly expressed our views, even when we knew them to be unpopular, especially in the country districts. We have maintained that moderation, not abstinence, constitutes virtue, and that the manufacture of light wines and beer was to be encouraged. We have shown that prohibition was not only a failure but a fraud, bringing with it a vast amount of immorality. It is now too late for the least honest set of prohibitionists to raise against us the cry of supporters of "free rum," by which they have tried to throw obloquy on those who differed from them as to the means of suppressing intemperance. The cry has now lost its power and will injure only the criers. We have the satisfaction of feeling that we have not allowed ourselves to be intimidated by such attacks, and that we have done our share in bringing about the triumph of temperance and morality which we confidently expect.

The serious questions of drainage and water-supply are weighing heavily on the public mind, and, we are happy to see, are receiving the attention of the city authorities. Though, as we have shown, there is strong reason for perfecting drainage arrangements before introducing a large supply of water, it is necessary to make sure that

we have water enough to sustain a dry season without inconvenience. Since October 31st, the Water Board has published daily a warning to water-takers to the effect that the lake is falling an inch daily, and that unless we have great rains this autumn it will require the strictest economy to make the supply last through the winter. We hope that the investigations lately made will in time effect a radical reform by greatly increasing the supply, but in the mean time we must consider the best method of husbanding what we have. The results of these considerations will not be useless when a better supply is obtained, for no profusion will justify waste, and if Boston proposes to annex the whole of Eastern Massachusetts, we are very doubtful if a profusion can be obtained. There is an effectual means of enforcing economy which we think has hardly received the attention it deserves. It consists simply in obliging every house to be supplied with a water-meter and in making water-takers pay for the quantity they use. The amount wasted is immense, and it is only by means that appeal to the pocket that it can be materially and permanently reduced. We believe that even if the meters were put in at public expense they would pay for themselves. Such a plan would, of course, necessitate the appointment of inspectors, and it may be that in any case they would be useful, but we must protest against a plan which the Common Council recommends to the Legislature. It is to authorize the city to control the arrangement of all water-pipes and fixtures and to license plumbers, who should see that everything was in order in their respective rounds. It is the last clause that we object to; if we understand it aright, it makes every plumber, good or bad, an agent of the city, with much discretionary power and no special accountability. We see that the plan would be most advantageous for the plumbers, but we doubt if for anyone else.

Returning to the question of a future and permanent supply of water, we see that the committee consisting of Drs. C. W. Swan, H. P. Bowditch and E. S. Wood, which was appointed some months ago to investigate the relative merits of rivers from which water may be obtained, has sent in a summary of the results of its studies, which will be given in detail in a later report. These gentlemen have examined the matter very thoroughly, and find that the water of the Shausheen River is the best and that of the Mystic the worst. They consider both the Charles and the Sudbury sufficiently good, and, on the whole, recommend Charles River, provided that the water be taken from the storage basin above South Natick.

The will of the late Professor Wyman, which has been duly proved, contains some bequests of great interest to the profession. His admi-

rable collection of comparative anatomy is left to the Boston Society of Natural History in consideration of a very moderate sum. Though not very large, this collection is nearly perfect in its way. As an illustration of the anatomy of the vertebrates, it is unequalled in America. It represents the greater part of Prof. Wyman's labors, and will be a perpetual monument to him. On some future occasion, we may give some account of its chief features.

The casts of the statues of the Warrior of Agacius and of the Venus of Milo are left to Harvard College, and the specimens of morbid anatomy and monstrosity are left to the Boston Society for Medical Improvement. It will be remembered that the collection of this Society is to be given to the Medical School as soon as the new building is finished. The Society of Natural History is to be congratulated on the rich accession it has received from its late president, and the scientific community is to be congratulated that this treasure will be preserved where it will be most available.

The present number of the *Chicago Journal of Nervous and Mental Disease* completes the first volume of this excellent quarterly. Barely one half of the leading articles are original, but these are very creditable, and the translations are well done. The reviews deserve special mention; they are clear, honest and readable. We go rather out of our way to say a good word for this journal, as we are pleased that one of this nature should flourish in America, and particularly in the West. We wish it a continued success.

Schneider on Extirpation of the Scapula.—Dr. R. Schneider, of Könisberg, reports a case (*Berliner Klinische Wochenschrift*, No. 31, 1874) in which the left scapula was extirpated on account of a sarcomatous tumor. The subject was a weakly boy, aged six and a half years. The tumor had been growing for five months, and during the last three months had increased rapidly in size. The whole of the left scapular region was finally occupied by a firm, elastic, painless growth, closely connected with the bone, but not involving the integument. This growth was of the size of the fist, and internally terminated at the base of the scapula, but passed beyond the external and superior margins of the bone. It occupied the whole of the outer surface of the bone, filling the supra-spinous and infra-spinous fossæ, and sent out a nodulated outgrowth into the axilla. The action of the left arm was much impeded. No swelling of the corresponding lymph-glands could be made out. On account of this, and of the slow growth, and the yielding consistence of the tumor, Dr. Schneider regarded the affection as sarcoma of the scapula. On December 3, 1873, the whole of the diseased bone was excised. The first incision was made along the base of the scapula; the second was commenced at the acromion and carried horizontally along the upper margin of the tumor to the commencement of the first incision. A flap was thus formed, the free angle of which corresponded to the upper and inner angle of the scapula. The portion of the tumor which projected beyond the upper margin of the bone was then exposed. The muscles attached to the inner and outer margins of the scapula were next divided. As the acromion, the neck of the scapula and the acromial part of the

clavicle had become involved in the tumor, it was found necessary both to open the shoulder-joint and to remove a portion of the clavicle. The deltoid muscle was cut through at its upper part, and the clavicle exposed and divided at an apparently healthy part. The articular capsule was now exposed, and the long tendon of the biceps muscle and the tendons of the muscles inserted into the great and small tuberosities, were cut through. The articular capsule was then completely separated from the margin of the glenoid cavity. The axillary portion of the tumor was dissected out with great care, in order to avoid wounding any of the large vessels of this region. The tendons of the muscles attached to the coracoid process having next been dissected, the separation of the tumor from the side of the thorax was easily effected. The supra-spinatus, infra-spinatus and sub-scapularis muscles were wholly removed. During the operation, the subclavian artery was compressed against the first rib. A spray of carbolic-acid solution was played upon the wound during the operation. The vessels were closed by carbolized catgut, and the dressings were strictly according to Lister's plan. The operation lasted for little more than half an hour, and the hæmorrhage was very slight; consequently there was no subsequent collapse. The boy did well from the sixth day after the operation, and on January 26, 1874, was regarded as cured. At this date, the parts about the seat of the operation were quite sound; the left shoulder was somewhat more depressed and less rounded than the right. The outer extremity of the clavicle, on which was fixed the head of the humerus, was directed backwards. The left arm was as large as the right. The left arm could not be abducted to any great extent, though by passive movement it could be easily elevated to the horizontal position. The humerus could hardly be moved, either forwards or backwards. The hand could be raised to the mouth and occiput through the free movement of the forearm.

On subsequent microscopical examination, the tumor presented the structure of a lymph or granulation sarcoma, which had undoubtedly been developed between the periosteum and the surface of the bone. The main elements were small ovoid cells filled with glistening protoplasm. The basis substance in the intra-periosteal portions of the growth was very delicate and soft, and on the extra-periosteal portions tough and fibrillated. In the course of a few weeks after the operation, the disease returned in the left shoulder, near the cicatrix, and at the same time a diffuse, doughy and painful tumor appeared at the upper part of the right tibia. These growths increased rapidly in size, and the patient's general health became much impaired. On April 20th he succumbed, death having been preceded for some weeks by pain in the back, great prostration and paralysis of the bladder and lower limbs. At the *post-mortem* examination, secondary growths were found in the lungs, on the anterior surfaces of the fourth and sixth dorsal vertebræ, and on the posterior surface of the sixth dorsal vertebra. The deposit in the last-mentioned situation had considerably contracted the calibre of the vertebral canal.

Dr. Schneider states that this is the nineteenth reported case of excision of the scapula, with preservation of the upper limb. The whole scapula, with the exception of the coracoid process, was first removed by von Langenbeck, in 1850, and the whole bone, together with a portion of the clavicle, was extirpated by the same surgeon in 1855. The scapula has been removed in two cases on account of caries, once on account of some obscure tumor, three times on account of enchondroma, once on account of an osteo-fibroid growth, and in thirteen cases on account of sarcoma or carcinoma. Of the nineteen subjects of these operations, only one died from the immediate effects. Two patients died from pyæmia, and one in consequence of bronchitis. In one case, the disease returned in the wound made in the operation, and the patient speedily died. The remaining patients recovered from the effects of the operation, and were, at least, temporarily cured. Dr. Schneider holds that the risks are smaller with total than with partial removal of the scapula. The hæmorrhage during the former operation is not very formidable, if the subclavian artery be compressed.—*London Medical Record.*

THE USE OF THE TOW PESSARY. By EDWARD COPEMAN, M.D., Senior Physician to the Norfolk and Norwich Hospital, &c.—At a time when we are constantly introduced to new instruments of every description, all professing to be improvements upon those before employed (but which do not always come up to the mark of usefulness claimed for them by their inventors), it may be a relief to fall back for a change upon something of a more *simple* character. I think surgeons will, as a rule, admit that the more simple the construction of their instruments the more satisfactory is the use of them, provided only they prove equally effective, although this feeling has been sometimes carried to too great an extent, unless in very practised hands. For instance, the late Mr. Martineau was in the habit of using one lithotomy staff for persons of almost every age, and one gorget for almost all; and these he carried to the hospital in his coat-pocket—a strange contrast to the variety and multiplicity of the instruments now provided for the operation, and borne in handsome, mahogany cases.

But the instrument to which I specially allude in this communication is the pessary, of which there is now such an infinite variety; perhaps proving that, where so many different ones are contrived, many of them have been found of little value. My experience of them certainly leads me to the conclusion that but few of them are to be depended upon, and that some are quite useless. The case to which I am about to refer was that of a patient of more than middle age, who applied for relief at the Norfolk and Norwich Hospital, and was under the care of Mr. Crosse. She had had complete prolapsus for a long time, and no kind of pessary was found to be of any use. I chanced one day to be in the ward when Mr. Crosse examined the patient, and he asked me whether I thought an operation he contemplated would be likely to afford relief. The uterus was quite extruded, and, when he returned it into the vagina, the folds of the vagina were so loose and redundant that he proposed removing a considerable portion on each side, in the hope that, in healing, it might afford effectual support to the uterus and prevent its further extrusion. The matter was left open for further consideration; but I suggested meanwhile, that he should reduce the uterus, and plug the vagina with some tow, which was lying at hand, covered at the top by, and partially enclosed in, a piece of linen, greased on the outside to facilitate its introduction. This was effectually done, and, although half a roll of tow was used, it produced no inconvenience, either to the bladder or the bowel. It maintained the uterus in its place, and was renewed as often as appeared necessary for cleanliness. Soon the patient was enabled to renew it herself; and, after a week or two, she was discharged from the hospital, and advised to continue the same plan. I heard from her some time afterwards, and ascertained that the uterus never came down now, and that she could even dispense with the tow pessary, except when over the wash-tub, at which times she *thought it prudent* to apply it. She had not been so well for years.

This was a remarkable case; the worst, in extent of prolapsus, I have ever seen, and, certainly, not amenable to any treatment by pessaries, as far as my experience guides me; indeed, almost every kind had been tried and failed. On reflecting upon it, I am inclined to the belief that a tow pessary might, in many cases, be used with success, and it has the merit of being incapable of doing injury to the parts with which it is in contact. It is easy of introduction; indeed, this patient soon learned to introduce it for herself. Being a compressible material, the tow would not keep the vaginal walls constantly on the stretch, like a solid body, but would rather allow them to contract gradually upon it, and thus prevent their losing their reliant power. The linen with which it is covered at the top and sides affords an easy means of withdrawing the tow for purposes of cleanliness, and the pressure which the tow exercises on the soft parts is equable, and so distributed that it causes no pain in any part with which it is in contact. Moreover, it is not liable to be displaced by any pressure or weight exerted upon it by the uterus itself, or by muscular efforts in defæcation, for it clings, as it were, to the walls of the vagina; and this, combined with the resistance of the sphincter, effectually prevents it from being displaced. I am very sanguine in the opinion

that a *tow pessary* will be found useful in cases where pessaries are usually employed; but, at all events, I feel sure it will be found a most serviceable and effective means of removing the difficulties and annoyances of a *complete prolapsus of the uterus*. If others are induced to try it, I hope they will record their experience in the journal.—*British Medical Journal.*

On a Disease of Carpenters. By Peter Eade, M.D. *British Medical Journal*, Oct. 17, 1874.—The author states it to be well known that undue or prolonged exertion of any part of the body is apt to be followed by an exhausted or more or less paralytic condition of the overworked part, and that this condition may vary from simple weakness to more or less complete loss of function of the affected part. The effect of such an exhausting or paralyzing cause may be produced, not alone at the special part itself, or even at the centre-point of implantation of the nerves passing from it, but also, especially by reflected action, at other points either near to, or at a distance from, the affected centre.

Carpenters, in much of their work, use their hands and arms pretty continuously in a monotonous way, as in planing and hand-sawing, so that the same set or sets of muscles are often called into action continuously. Ordinarily, they do not suffer from their peculiar work, so that special circumstances or conditions seem to be necessary to induce evil results.

Dr. Eade reports the case of a carpenter who first came under his observation in March, 1870. He had usually enjoyed good health till October, 1869, when he began to complain of numbness and pain of the fingers and hands on both sides, extending as high as the wrists; not long after this, shortness of breath, made worse by exertion, came on, and this was soon followed by a slight cough and expectoration, the latter once or twice tinged with blood. He felt generally weak, and was unsteady about the knees in standing or walking. At the time of his admission to the hospital, the numbness and aching of the hands and the shortness of breath were his principal symptoms. He had still some trifling cough and spitting, and, though his body was well nourished, he was evidently weak in all his limbs, and had a fidgety, nervous manner. The respiratory murmur was found to be weaker on the right than on the left side of the chest; but no other abnormity of the lungs, and none of the heart, could be discovered. There was no disease of any other viscus.

Two other cases, one of a carpenter and the other of a laborer who had overworked his upper extremities by prolonged digging, were brought to the author's notice. All three presented similar and closely allied symptoms, one of the most prominent of these being the free secretion of whitish mucus, apparently from the mouth and throat and the air-tubes, but without much cough, and without any distinct chest disease. Other symptoms have been, shortness of breath; vague pains and discomforts in and across the chest, either limited to this part or extending upwards to the neck, face and head; sensations of dorsal chilliness or tremor, but scarcely any distinct spinal tenderness, and in all a peculiar nervousness and fitgetiness of manner.

A fourth case is also reported, of a man who had strained his arms severely in throwing and barrowing earth, the effect of which was to cause much numbness and aching weakness in his arms.

Although of the four cases reported only two were carpenters, yet the first and most typical case having occurred in a carpenter, the writer thought it best not to alter the title to his paper, believing that the term not inaptly expresses the nature of the disorder from which all suffered. Its exact nature is probably irritation, followed by exhaustion, of those portions of the spinal cord from which the nerves of the brachial plexus arise; in other words, it is an erethism of this plexus and of its related cervical ganglia, with reflexed disturbed action of other parts whose nerves are in connection with these cervico-dorsal nerves.

As to treatment—nothing except prolonged rest has seemed to be of value.

Medical Miscellany.

More than one-hundred thousand dollars has already been raised for the new building for the Harvard Medical School.

In olden times, they had "Stone-cutters" and "Rupture-curers" by appointment in the London hospitals, a grade inferior to that of surgeon.

Speaking of Medical Schools, the *Philadelphia Medical Times* says: "We believe Harvard has the only rapidly-growing class on the continent, and it apparently soon will have, if it has not, even now, the *best-paying* medical class in the United States.

On Friday afternoon, the 30th ult., Mr. J. Toole, the comedian, assisted by the English members of his company, generously gave an entertainment at the Insane Department of the Philadelphia Hospital, for the amusement of the unfortunate inmates and their attendants.—*Medical and Surgical Reporter.*

Several rather severe losses of cattle have lately been sustained by occupiers of low, marshy, undrained lands in different parts of Ireland, from vegetable poisoning. One outbreak of the kind has recently been successfully investigated in County Galway. It was distinctly proved that the cause of death was the poisonous effects of *Colchicum autumnale*, a plant peculiar to the lands above described. Twenty-three animals, belonging to six or seven small tenants, have succumbed.—*Medical Press and Circular.*

The Odorless Method of emptying vaults has been in successful operation in this city for several weeks, and all the advantages experienced from its application in other cities have been fully realized here. Vaults are emptied in open day without the slightest offence. The public is indebted, primarily, to the Board of Health, for urging this excellent innovation upon the attention of the Committee on Health.

Mosquito Bites.—The appearance of the mosquito in England has occasioned some excitement during the past summer, and will probably occasion more next year. The result of our experience, which we publish for the benefit of our trans-Atlantic friends, is that the itching may be relieved by rubbing olive oil over the bite, and repeating, if necessary. The relief thus obtained generally lasts several hours after each application of the oil. Scratching the bites doubles or trebles the suffering.

The ease with which powerful drugs are obtained without medical prescriptions, even in foreign cities under stringent laws, was shown not long since by a singular practice among the coachmen in Bordeaux. They were proved to be in the habit of taming down and rendering more easy to drive the spirited horses placed under their care, by morning doses of chloral. The animals became sleepy, more gentle, and much easier to manage. This suited the coachmen better than it did the masters. It was some time before the veterinary surgeons could discover the trick.—*Medical Times and Gazette.*

Female Physicians.—We quote from an article on this subject in the *Lancet* of Oct. 17th: "If we judge aright, the sentiment of English men and of English matrons, and, what is more, of the great body of the general practitioners in the country, is decidedly opposed to the institution of medical women. There are some crotchety persons, and always will be a few, who will advocate the claims of medical women, and who will lend them every encouragement, so that they may be at variance with their fellows, if for no other reason. Presumedly, the chief object in educating women in all the details of medical science and art is to qualify them for the practice of obstetrics and gynæcology, and of diseases of children. But, paradoxical as it may appear, these may prove to be the very departments of practice for which women are, morally, physiologically and physically, least fitted."

CREMATION.—Lady Dilke's body was burnt, as she had directed, in an oven at Dresden, Oct. 9th, in presence of distinguished physicians and officials. At the end of ten minutes, the muscular parts were generally broken up; in twenty, the skeleton was exposed, and its destruction began; in thirty minutes, the soft parts were generally consumed; in sixty, the bones, also, were greatly reduced. At the end of seventy-five minutes, the ashes, weighing about six pounds, were collected and put into an urn.—*British Medical Journal.*

DESERTS AS HEALTH RESORTS.—At a recent meeting of the Munich Academy of Science, Prof. Zittel read a paper, detailing the results of observations made by him with regard to the air of the Lybian desert during the months of January, February, March and April, 1874, tending to prove that this desert contains a very much larger amount of ozone than that of the oases, or the Nile valley. The belief that the desert air is beneficial to invalids, especially those suffering from pulmonary complaints, is of ancient origin, and, in accordance with this idea, the Khan has recently decided to repair to Helnau, in the so-called Eastern, or Arabian, desert of Egypt.—*Allgem. Med. Cent. Zeitung*, Sept. 30, 1874.

IN Sweden, there are seventy-nine hospitals, containing 4,687 beds, receiving an average of from 30,000 to 32,000 patients. The expenses of these hospitals amount to about £40,000 per annum. There are nine lunatic asylums, containing 1,210 beds. Stockholm has seven hospitals, of which the most important is the Clinical Hospital, containing 300 beds. The wards of this institution are small, low, badly lighted and poorly ventilated.

In Norway, they employ tarred oakum for dressing wounds, the bandages and other portions of the dressing being impregnated with acetate of alumina. At Christiania, in the Medical wards, it is the custom to cause patients affected with acute pulmonary troubles to respire air charged with aqueous vapor. The bed is entirely covered with a moderately thick cloth, in which are two apertures for the renewal of air. A water vaporizing apparatus is placed at the foot of the bed, to the level of which the vapor is conducted by a tube. This mode of medication is tolerably successful, particularly in children's cases.—*The London Medical Recurd.*

NOTES AND QUERIES.

THE JOURNAL of November 5th has an extract from the *Medical Weekly*, giving an account of a case of poisoning by bromo-chloralum. Will some one inform me what is bromo-chloralum? I should like to KNOW.

MORTALITY IN MASSACHUSETTS.—*Deaths in thirteen Cities and Towns for the week ending October* 31, 1874.

Boston, 130; Worcester, 20; Lowell, 20; Milford, 4; Salem, 11; Springfield, 7; Lynn, 9; Gloucester, 2; Fitchburg, 2; Taunton, 1; Newburyport, 3; Fall River, 17; Haverhill, 5. Total, 231.

Prevalent Diseases.—Consumption, 42; pneumonia, 18; typhoid fever, 8; cholera infantum, 8; scarlet fever, 8; diphtheria, 6; croup, 5.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 7, 129. Males, 64; females, 65. Accident, 2; apoplexy, 6; bronchitis, 6; inflammation of the brain, 1; disease of the brain, 5; cerebro-spinal meningitis, 2; cholera infantum, 7; cholera morbus, 1; consumption, 18; croup, 1; debility, 2; diarrhœa, 2; dropsy of the brain, 4; dyspepsia, 1; dysentery, 1; diphtheria, 1; exhaustion, 3; erysipelas, 1; scarlet fever, 2; typhoid fever, 5; gangrene, 1; disease of the heart, 8; homicide, 1; intemperance, 1; disease of the kidneys, 4; disease of the liver, 2; congestion of the lungs, 1; inflammation of the lungs, 8; marasmus, 8; measles, 1; old age, 4; paralysis, 3; pleurisy, 1; premature birth, 2; peritonitis, 1; puerperal disease, 3; rheumatism, 1; suicide, 2; "sequelæ of chickenpox," 1; syphilis, 1; tumor, 1; tabes mesenterica, 1; unknown, 2.

Under 5 years of age, 41; between 5 and 20 years, 9; between 20 and 40 years, 31; between 40 and 60 years, 23; over 60 years, 25. Born in the United States, 80; Ireland, 34; other places, 15.

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Original Communications.

PROFESSIONAL REMINISCENCES.

By J. L. CHANDLER, M.D., of St. Albans, Vt.

Read before the Vermont Medical Society, Oct. 15, 1874.

MR. PRESIDENT AND GENTLEMEN,—I am grateful for the courtesy so often extended to me, an antiquated member of your profession, where it always gives me pleasure to be tolerated. Participation in your discussions has become impracticable. I can merely *grope* in the twilight of age and infirmity, and must be satisfied to be an interested listener. I will only detain you from more profitable exercises but a short time with a few professional recollections.

More than half a century since, I always encountered at your meetings several of the venerable pioneers of the profession in Vermont, whose earnest bearing stimulated my young ambition to efforts for the attainment of all attainable knowledge in medicine, though the efforts suffered a terrible failure of success. Medical association, intercourse, fellowship, is not merely a recreation—a refreshment—but is indispensable for the attainment of a high grade of professional aptitude. The foundation for this must be laid in preliminary, scientific study, and medical colleges; but its completion can only be effected by kindly personal intercourse. I well remember, during the early stage of my medical pupilage, the discussion of plans for the formation of a Vermont State Medical Society, by such men as Ezekiel Porter, of Rutland, John Pomeroy, of Burlington, Benjamin Chandler, of St. Albans (my honored father), and their associates, and little did I think then—more than sixty years ago—of being here at this late date, to make honorable mention of its founders.

I became a member of this Society soon after its formation, and am prouder of the honor of having once been called to preside over its deliberations, than of any other distinction I ever attained.

That it has done all for the profession, or for the people, that might have been expected, may not be claimed; but that it has constituted one efficient element in improving and elevating the profession in Vermont during its existence, my own observations, for nearly sixty years, make it to myself very obvious. It is the germ from which many minor associations have emanated in the State, diffusing intelligence and genial elements through the profession that, forty years ago, were almost unknown, and hardly deemed attainable in the profession. "Doctors will disagree" had become a proverb.

To the younger members, professional association is absolutely a *sine quâ non*. Attrition of mind with mind, suggestion with inquiry, *ipse dixit* with demands for demonstration, are the methods by which

we keep off rust, and improve in our ready discriminations in the varying aspects of disease, and in our adaptations of remedies. And let me beg your forbearance, gentlemen, while I urge on the younger members of your Society the paramount importance of that department denominated diagnosis. Yet let them not be too much depressed if, in calling their seniors in consultation, they sometimes find themselves convicted of false diagnosis.

I have seen instances of the same blunder in reverend seniors (to say nothing of my own unnumbered mistakes). Many years since, an intelligent medical friend, residing in a distant part of the State, had a patient, a young lady, suffering from derangement of the assimilating functions, which, for a long time, had resisted all treatment for relief. An eminent member of the profession, a professor in more than one medical college, was called in consultation, who pronounced it a case of valvular disease of the heart, and hastily predicted that the patient, at the utmost, could not survive a year. My friend, the attending physician, yielded his own opinion, and the patient was given over to her doom. Having occasion, subsequently, to visit the place of my friend's residence, he courteously invited me to accompany him in a visit to this patient, without giving me any intimation of the facts as above related. I examined the patient as if I had been called in consultation, and gravely pronounced the case *anæmia*, from derangement of the digestive organs, and want of due assimilation, and thought she would probably recover, *inferring* that my medical friend's opinion was the same. He expressed his regret that I had given my opinion so hastily (which, I think, had surprised him), "especially in the hearing of the patient, lest it should excite false hopes." But no such result was likely to follow, for the beautiful patient exhibited strong resentment, that I should presume to question the capacity of the venerated Dr. Mussey to judge correctly of her case, and its final result, evidently assuming that I had been informed of Dr. Mussey's opinion. It is no more than just to the memory of that distinguished man (as the result will show) to say that this occurred only a few weeks after the first introduction of the *stethoscope* into the United States, and I think it not unlikely it may have been the first opportunity presented him for testing its reliability, as a means of detecting the seat and character of internal disease. Is it a wonderful thing that the most adroit man in the profession, even, should have failed of a true diagnosis, under like circumstances?

The young lady had the aspect, very obviously, of anæmic patients, had the delicate organization, which often characterizes females for a period before and after puberty, favoring the development of romantic absurdities. She evidently delighted in the idea of her own frailty, and enjoyed the admiration of her sympathizing friends. I had a clear recollection of my honored father's method, and management of such patients. I was permitted to reëxamine the case, but could find no evidence of valvular disease, and, notwithstanding my sincere reverence for Dr. Mussey, I adhered to my own opinion, for which my medical friend evidently pitied me, and the beautiful patient hated me. She lived on, the same lovely, interesting, suffering invalid, one year, ten years, twenty years—became a maiden lady at last, and got *married*, and, a long time after, died, whether of valvular disease of the heart, I never learned.

To counterpoise the self-conceit which may have prompted the above story, and as penance for having made free with an oversight of Dr. Mussey, whose shoe-latchet I was unworthy to unloose, please bear with me, while I relate *one* of my own humiliating blunders.

In early professional life, I was called in consultation in a case of strangulated inguinal hernia—the attending physician, also, being young in experience—and found the scrotum enormously distended. All attempts at reduction had failed for some four days, and my own attempts to accomplish the feat were equally futile. I had never even *seen* the operation which is the *dernier ressort* in such cases, and my medical friend was equally at fault.

The patient was old and feeble, and evidently losing ground rapidly. We were at too great distance from any competent surgeon, who could arrive seasonably. We had but a misty recollection of the anatomical relations of the region, and lacked even a decent case of pocket instruments. My friend positively declined the attempt, and I must look on and see the patient die, or make the attempt myself. The distention of the scrotum was lessened one-half at the first incision, which was a rash one, considering that I knew little what I was about, and there was a sudden gush of serum, seemingly a pint, which proved, I suppose, that the vaginal coat of the testes was distended with fluid, thus complicating the case. I made a bloody business of it, and after much tumult succeeded in returning the intestine; and, though I noticed some dubious discolorations on its outer coat, I knew of no better expedient than to hide them in the abdomen. I had controlled the hæmorrhage by ligating several arteries, most of which, I suspect, were needlessly severed, and was preparing to close and dress the wound, when I discovered a very dark spot on the investing membrane of the testis, perhaps three-fourths of an inch in diameter. Leaving the patient in the care of other attendants, I took my friend out of ear-shot and said to him, "Tell me, is that incipient mortification? It's a matter of life or death!" His reply was, "I don't know. Do as you think best, and I'll maintain you were right." I removed the testis, and the patient lived on, many years.

I've told you this prosy story, gentlemen, in part, also, for the purpose of introducing you to the late venerable Dr. Mott, of New York, who, you will perceive, failed to admire me, either for my adroitness in surgery, or for any discrimination in diagnosis. For several months I had been growing a little sensitive over the question whether it had been needful thus to maim the good old gentleman's manhood. It was my habit in those days to visit New York occasionally, and Dr. Delafield, having once before done me a professional kindness, repeated the favor by accompanying me to Dr. Mott's library, where we found him disengaged, and said he would leave me for half an hour in Dr. Mott's hands. I don't think I had ever seen a library before. I had felt some complacency in my own little collection of medical books, but could have stored them in a bushel basket. The dimensions of the room were some twenty by thirty feet, probably more on the floor, and the walls very high and, with the exception of needful spaces for doors and windows, entirely occupied with garnished shelves from bottom to top, and filled with books. The doctor was sitting in an easy-chair, by the side of a table, with a volume in his hand, which he courteously laid aside as we were ushered in; he exhibited a tidiness

and purity of costume and person which, I think, could not have been displayed by an ordinary man, without reminding us of the shallow-pated pigmies we sometimes encounter in the guise of birds of paradise. But on Dr. Mott, the easy grace of his bearing made it seem the mere outgrowth of his manhood, and he was obviously unconscious of his clothes. His dress consisted of neat but plain slippers, white silk stockings, light buff small clothes, festooned at the knee with small, plain gold buckles, light buff coat, white vest, and white satin stock on the neck. He wore a diamond ring on his finger, and as I grasped his soft hand in my own rough paw, I thought I felt the vibration of a *shudder* creeping through his entire frame. He was very courteous, and evidently strove to avoid any appearance of condescension towards me, though my own sensations reminded me of the country mouse, who visited the city lion. It was marvellous—the care with which he kept his claws retracted, as he took the mouse in hand for a little examination; and, really, one might have thought, to have heard him, that he sometimes found me a very clever *mouse*. So, I soon found myself at ease and at home, and quietly gave up the attempt to personate a lion.

After other matters of inquiry, in regard to medical men in Vermont, two or three of whom he spoke of in terms of interest and respect, he began to question me a little in regard to my own practice, and whether I was fond of surgery, and then startled me with the inquiry whether I had had much experience in strangulated hernia. I think I was not sorry, for I found myself in a mood to make a clean breast of it, and to tell him the whole unvarnished truth in regard to the case and the operation, without any covert contrivances for concealing my own awkwardness or ignorance.

He was very considerate—interrupted me with no inquiries or comments during the relation, but, in his appearance, reminded me of a patient in the hands of a dentist, without the alleviation of chloroform.

After I got through, he inquired—"and did he survive all this?" I replied, "He yet lives, and is a hearty, hale old man." With a sigh of relief, his only utterance was, "Fortunate!!" "And now, doctor," said I, "will you do me the favor to tell me frankly whether I did right, under the circumstances, in removing the testis?" He looked at me for a minute, inquiringly, as if to consider whether I could bear the truth, and said, "Well, doctor, under the very peculiar circumstances (as much as to say, I suppose, as the patient was in the hands of a brace of green tyros, who did not know the difference between gangrene and simple ecchymosis), perhaps we might say you did right; but there was not the least occasion in the world to make a gelding of your unfortunate patient."

Perhaps a little restitution is due the gentler sex for portraying an instance of their sentimental nonsense, from which they may fancy we deem ourselves exempt. Let me give you a like specimen exhibited in verdant manhood, probably at about the same period of development. During my early pupilage, I was fast becoming a sentimental exquisite myself; reading myself well up in all the pathological abnormalities of the heart, till I honestly believed they had me in their clutches, and I had begun to admire myself as an interesting pathological specimen. On one occasion, after a late and hearty supper, I went early to bed, and, at midnight, the abnormalities had me fast. I

believed I could neither breathe, nor feel pulsation at the wrist. A boy was within call in another chamber, whom I sent in haste to my father below, with a message that I was dying. I felt a little mortified that he did not hurry up; but he came at last, with a lamp in his hand, and, looking me sternly in the face, said, "What now?" I looked up beseechingly, and faintly and meekly whispered, "My heart!" He paused a moment as if for devising an appropriate remedy, and then gave it, in no very gentle tones, saying, "My son, if you ever call me up again to see you die, I'll recuperate your heart with a horse-whip!" and left me to die alone, and I was greatly chagrined by failure to accomplish the feat.

Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

Pneumatocele Cranii, caused by Rupture of the Mastoid Cells.—Prof. Wernher, of Giessen (*Zeitschrift für Chirurgie*, vol. iii.), describes a case of pneumatocele cranii from the spontaneous rupture of the cells of the mastoid process. The patient, a young woman, aged twenty, free from any disease of the ear, reported that, four years before, after violent sneezing, a tumor, as large as a pigeon's egg, unaccompanied by pain, appeared over the upper part of the mastoid process. At first, under pressure, it disappeared, but returned immediately with expiration; it gradually enlarged, and, at the time of examination, the right half of the scalp was taken up by an enormous swelling of three lobules, which extended beyond the vertex, and backwards to the occipital bone; at the most prominent points, the skin was raised two inches from the bone. The tumor was painless, the skin over it normal; the tone, on percussion, sonorous; but auscultation, under pressure, gave a blowing sound, and not emphysematous crepitus; from sneezing, or Valsalva's inflation, it increased slowly; under compression, it diminished slightly, and the patient felt as if air passed into the pharynx, and some difficulty of respiration was caused. A three-cornered opening could be felt in the bone of the mastoid, into which the end of the finger could be passed. The ear appeared normal, but the hearing was a little dull on that side.

An elastic bandage over the head emptied the air from the tumor, and was worn for twelve days, in the hope that adhesion of the skin to the bone would take place, but without success; a small portion of the tumor was then pressed between the fingers, and into this a small quantity of tincture of iodine was injected from a subcutaneous syringe; four similar injections were afterwards made in other parts of the tumor, and the adhesive inflammation, resulting from these, attached the skin firmly to the bone, and the patient was cured. Very slight local irritation followed the injections.

Wernher closes his article with a review of eleven cases of a similar disease, already described.

Traumatic Otorrhagia.—Dr. Le Bail, in a monograph on this subject, draws the following conclusions:—

1. That a discharge of blood from the ear, after an injury of the

head, is characteristic of no one disease, and is, in itself, absolutely, of no diagnostic value.

2. Such a discharge is common to several lesions of the ear, arising from different causes, viz.:—

a. Wounds of the external auditory canal, which frequently result from injury to the face or lower jaw; in these cases, the history of the injury, the condition of the inferior maxillary articulation, the condition of the membrana tympani and the tympanic cavity serve to guide the surgeon to an accurate diagnosis.

b. Injuries of the membrana tympani and the mucous membrane of the tympanum, which frequently accompany injuries of the head, and may be the result of either direct or indirect violence; in these cases, the progress of the symptoms enables us to decide on the seat of injury. An injury of the drum-membrane or tympanum does not cause the serious train of symptoms which a fracture of the petrous bone does.

c. Fractures of the petrous bone, in which the duration, intermittence and repetition of the bleeding are of great diagnostic value in distinguishing the injury from a simple laceration of the middle ear, for in the latter case the bleeding soon ceases, and does not return.

In connection with the subject of bleeding from the ear, the observations and conclusions of Hagen (*Praktische Beiträge zur Ohrenheilkunde*, 1866) on the pathognomonic value of serous discharge from the external ear, after injuries to the head, are of interest. The generally-received opinion that the serous discharge from the ear, after an injury to the head, always comes from the subarachnoidal cavity, and is, in fact, the cerebro-spinal fluid, and that, therefore, such a discharge is pathognomonic of a fracture of the base of the skull, he denies, from the fact that several cases have been reported, in which a very copious discharge of serous fluid from the ear, followed injury of the head, and yet *post-mortem* examination showed that no fracture of the petrous bone had taken place. One case showed, six years after the injury, no trace of a fracture of the skull, but only a cicatrix on the membrana tympani, dislocation of the ossicula and pseudo-membranes on the secondary foramen; in another case, in which, as the result of a fall on the pavement and a consequent blow on the side of the face, a watery discharge began immediately from the ear, and continued, at the rate of 7 to 12 grains per minute, for three days, perfect recovery followed; but three years afterwards an autopsy showed no fracture of the skull, and only an ununited fracture of the base of the stapes, so that the tympanum and the vestibule were in communication.

Hagen concludes that, although in general a serous discharge from the ear is the result of a fracture of the base of the skull, it is not necessarily so; that in cases in which bleeding and a serous discharge from the ear result from injury, the diagnosis must be doubtful, unless the chemical constituents of the secretion are different from those of the cerebro-spinal fluid; in that case, we can exclude a fracture of the petrous bone. He holds, with Prescott Hewett, that a serous discharge may be secreted from the mucous membrane of the tympanum without a fracture of the petrous bone.

A New Method of Removing Foreign Bodies from the Ear.—In addition to the methods of removing foreign bodies from the ear, already described, viz., the syringe, forceps, wire loop, hook, crushing instru-

ments, attachment of a thread to the foreign body by glue, shrivelling of the mass, when possible, by astringent instillations, Voltolini (*Monatscrift für Ohrenheilkunde*, No. 8) suggests burning the mass into fragments by means of the galvano-caustic, and narrates a case in which he was able to do this with perfect success. The patient had been ordered to use powdered alum in the ear to check an otorrhœa; some months afterwards, that ear was found to be filled with a hard, stony mass, which could not be removed by the forceps or syringe. By means of the galvano-caustic, however, Voltolini was enabled to reduce it to fragments, and thus to free the ear entirely. The possibility of this procedure is worth remembering in those cases which occasionally tax the ingenuity of the surgeon to the utmost.

(To be concluded.)

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION. W. L. RICHARDSON, M.D., SEC.

Two Cases of Pneumonia, in which the Characteristic Symptoms of Cough and Expectoration were Absent.—Dr. S. W. Langmaid reported the cases:—

Case I.—Mr. B., 48 years old, a master builder, residing at south end of Boston, first visited July 6, 1872.

He says that, upon returning home yesterday afternoon, after a short drive into the country, he was seized with headache, and from being at first chilly became quickly feverish. The headache continued through the night. This morning, he vomited. Has now no nausea, but headache is constant. He reports the bowels rather constipated. He is in bed, lying on his back. Face somewhat flushed; skin hot; pulse 80. No eruption upon skin. Decided tenderness at pit of stomach. No cough, and no pain, except headache.

I supposed he was suffering from slight cold, with some digestive disorder.

Prescribed a purge of calomel and rhubarb.

The next day, Sunday, being spent out of town, I did not see him.

Monday, 8th.—Reports that the headache was relieved by the action of the cathartic, but that he still feels feverish, and much weaker than was to have been expected from so gentle a purge.

This weakness he thought might have been caused by a fracture of the radius, which had been more or less painful throughout its continuance, the splints having been removed three days before his present seizure. He has no cough nor pain, but feels very much like lying in bed. Skin somewhat warmer than usual. Pulse 78.

Is told to remain in bed. Some fever drops are to be taken whenever needed.

9th.—Reports as yesterday, almost no change. Still some feverishness. Pulse 80, not very full.

For the first time, *respiration* is noticed to be somewhat hurried (how rapid, I failed to record). No cough, no pain, no expectoration. This was the fourth day. He was still somewhat feverish. The pulse was more rapid, and the respiration hurried.

There was evidently something more here than mere bilious disorder.

Upon examining the chest in front, I found nothing abnormal, but the first percussion stroke on the right back showed the situation of the disease. Dulness on percussion. Bronchial respiration, and increased vocal fremitus over a space corresponding to the lower lobe of the lung, with here and there slight crepitant râle, made it perfectly clear that I had a case of pneumonia to deal with. But I had never seen a case in which the consolidation had taken place without cough and some pain.

I need not go on with the particulars of recovery; but will only say that, from the beginning to the end of it, there was never anything like pneumonic expectoration; indeed, there was much less than the normal amount of mucus expectorated, and that never colored.

July 19th.—Thirteen days from the commencement of the disease, the patient was about his room, and my visits were discontinued.

Case II., April 29, 1874.—Mr. R., 64 years old, a teacher, residing in a neighboring State, complains of headache, nausea and feverish feeling. Had chill day before yesterday. Has slight pain in region of liver. Bowels much and habitually constipated. Has had hæmorrhoids for years, and three years ago received advice from me for a moderate enlargement of the prostate gland.

Had, while a student, some acute trouble in right lung, and has considered that lung "weaker" than the other ever since. Within two years, has had two attacks of moderate jaundice.

Previous to present attack, has considered himself in good health.

Present condition.—In bed, upon back. Very tall, and thin in flesh; evidently not a robust man. Speech and facial expression show nervous temperament.

The skin is not discolored, only a want of transparency noticed. Complains of dull feeling in region of liver, and there is tenderness at præcordia. No enlargement of liver made out. Percussion and auscultation reveal nothing abnormal. No cough. Pulse 82; its rapidity out of proportion to amount of febrile disturbance, but accounted for by his statement that it is always fast. No disease of heart found.

The case appears to me to be one of bilious derangement, such as he was likely to suffer from, and such as he had had before. I remarked to his wife that I should not be surprised if he became jaundiced. Prescribed farinaceous diet, and a pill, containing a quarter of a minim of croton oil, with small amounts of jalap and colocynth. He has been taking eight grains of quinine daily, and will continue to do so.

30th.—Condition much as yesterday. Pill operated freely twice; did not cause exhaustion. Was restless last night. Complains of headache, and heavy feeling in region of liver. Slight, transient pain darting from region of liver towards right clavicle. Pulse 82. Region of liver carefully ausculted. Thorax, also, front and back. Nothing abnormal found. Urine dark colored.

Was given a fever mixture, and was kept on farinaceous diet.

May 1st.—Was restless all night. Condition this morning about as yesterday, except that skin and conjunctivæ are decidedly yellow. Urine contains bile.

Four leeches to be applied to region of liver.

One aloes and myrrh pill ordered; to take eight grains of Dover's powder at night.

Saturday, May 2d.—The fourth of my visits. His condition at the

morning call was not changed. Has had no more pain or bad feeling in region of liver since the leeches were applied. The quinine is discontinued. Was asked to see him at night, as he seemed to have become weaker since morning. Found the pulse rapid and small, 110, occasionally intermitting. The quinine is resumed during the night.

3d.—This morning, the pulse is stronger and slower, although 90 to the minute.

Monday, May 4th.—Condition worse. The jaundice has deepened. He is weaker. Pulse 112. Temperature 100·2°. Was ordered beef-tea and champagne.

May 5th.—Consultation with Dr. Ellis. Patient's pulse very rapid, small, and intermitting every fourth or fifth beat. Respiration rapid. Patient was raised to sitting posture, and the first tap on the right back showed where the trouble was.

I think it right to say here that I had constantly in mind the liability to the complication of jaundice by pneumonia, and had, during the first two days, made careful examination of the thorax, and inquiries with respect to cough, and pain in the side. And, since the first case which has been related, I have never lost sight of the fact that pneumonia might exist without the presence of cough, pain or expectoration. In the absence of these, I must say that my attention was directed more especially to the region of the liver. It was found that at least two-thirds of the lung were involved. Concentrated beef-juice with milk punch were given, alternately, every half hour.

The next morning, the consolidation had extended to the upper portion of the lung. The patient's mind was confused. Temperature 101·2°. Pulse 120.

Thursday, 7th.—Crepitus was heard almost all over the back in places; and on Friday the crepitus was more general and the tubular breathing less decided. General condition better.

Convalescence was slow, and on the 29th of the month, thirty-one days from the date of my first visit, he was able to return to his home. Crepitus was heard in isolated places up to within four days of his leaving town.

Had I time, and if it were consistent with the object of this report, I might enter more fully into the symptoms and treatment of these cases, particularly the last, which, contrary to the expectation of Dr. Ellis and myself, recovered. Enough has been said, however, to show that these were cases of pneumonia which went through the various stages of consolidation and resolution, with absorption of the material with which the lung was gorged, without pain, cough or any expectoration, which would call attention to the true seat of the malady, unless the occasional yellow sputum referred to below be considered pathognomonic.

In the last case, there was expectorated, once each day from the date of consultation, from one to three masses of extremely tenacious yellow matter, slightly discolored, but it was the patient's belief, and my own, that this came from the posterior nares and pharynx. Certainly, there was nothing like characteristic sputa.

I do not know but members of the Society have seen similar cases, but they are the only ones in my experience, and they have seemed worthy of being brought to your notice to-night.

Dr. Minot said he had seen several cases like those Dr. Langmaid

had reported, in which there was neither cough nor expectoration. He thought that pneumonia was frequently overlooked from this very absence of symptoms which pointed to the lungs.

Dr. STEDMAN agreed with Dr. Minot, and cited the case of an old man who had pneumonia of the right lung unaccompanied by any pulmonary symptoms.

Dr. KNIGHT alluded to the case of an old lady who had been admitted, several years ago, to the City Hospital, for rheumatism. A careful examination showed pneumonia of one or both lungs, the exact condition he had forgotten, yet there had been no cough or expectoration prior to her entrance to the hospital.

Dr. BOWDITCH had seen a case in which there was complete solidification of the lung, and yet during the whole progress of the disease but a single characteristic sputum was observed.

Dr. C. P. PUTNAM alluded to the fact that, in pneumonia of young children, there was rarely any cough.

Dr. REYNOLDS alluded to the case of an old gentleman who had died of double pneumonia, and yet there had been only a slight cough and one characteristic sputum.

Dr. J. G. BLAKE said that these cases were by no means rare at the Home for Aged Men.

STATISTICS OF SCHOOL CHILDREN.—The classification of school children, according to the color of the eyes, hair and skin, has been made in the various public and private schools of Nuremberg, with the following interesting results. Of 9,819 children examined, 34 per cent. were found to have blue eyes, 31 per cent. grey, and 35 per cent. brown. The color of the hair was blond in 61 per cent., brown in 45 per cent., and black in 4 per cent. The color of the skin was white in 83 per cent. and brown in 17 per cent. The different combinations are represented by the appended figures.

Eyes.	Hair.	Skin.	Total No.	Jews.
Blue,	Brown,	White,	882	40
"	Blond,	"	2,244	29
"	Brown,	Brown,	226	16
Grey,	Blond,	White,	1,645	12
"	Brown,	"	879	30
"	"	Brown,	316	6
"	Black,	"	97	11
Brown,	Blond,	White,	1,122	16
"	Brown,	"	1,532	100
"	"	Brown,	586	24
"	Black,	"	290	32

—*Allgem. Med. Cent. Zeitung*, Sept. 30, 1874.

A SULPLEMENTARY SPLEEN.—An interesting case of farcy was admitted into the Charing Cross Hospital last week, which terminated fatally, from exhaustion, in a few days. Only one abscess in the left axilla required opening. The *post-mortem* revealed the following: The body was well nourished generally; a few pustules in the upper part of the thorax; both lungs in the first stage of pneumonia; on the right side there were old pleuritic adhesions; the heart sound was empty; the lining of the aorta was covered with atheromatous patches; liver normal, also the spleen, and, strange to say, there was a supplementary spleen, the size of a walnut; the kidneys were congested, especially the right, which was larger than left, and weighed considerably more; the lymphatic system was generally in a state of turgescence, but there was no appearance of pus in any of the joints or internal organs.—*Medical Press and Circular.*

Bibliographical Notices.

Pharmacographia. A History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By FRIEDRICH A. FLUECKIGER, Ph.D., and DANIEL HANBURY, F.R.S. London: MacMillan & Co. 1874.

THE ground covered by this book is not precisely the same with any of the numerous works now in use upon materia medica and its allied branches. The authors say:—"It is, in fact, a record of personal researches on the principal drugs derived from the vegetable kingdom, together with such results of an important character as have been obtained by the numerous workers on materia medica in Europe and America." They leave out almost completely any direct reference to pharmacy proper; and therapeutics is merely touched, the chief use of each drug being mentioned, without any attempt to explain its action, except so far as a recognition of the actual or probable active principle may be thus considered. Although the book does not in the least supersede the use of works on chemistry and botany, and does not pretend to be an encyclopædia, its information upon these points, as well as on history, production, commerce and adulterations, is very full; and, what is quite as much to the point, is undoubtedly, from the well-known reputation of its authors, accurate and reliable, informing us whence the drugs actually in use are derived, rather than, like some older works, indicating whence they might be, or used to be, obtained. Any more extended statement of the contents could hardly be of much value to any but those who will want the book itself, and they are all who are interested in drugs aside from their therapeutic uses. But one gets a realizing sense of the enormous territory covered by organic chemistry, over which no one man can possibly travel and observe all the details, by examining the analyses of some single drugs; opium alone gives us sixteen alkaloids, with many artificial derivatives, to say nothing of acids and other less defined substances. Five alkaloids have been derived from different varieties of cinchona, in addition to the four (or six) better known.

The style is clear and concise, and the work is one which in every respect attains the object for which it was intended. Much of the material is necessarily common property with other works on pharmacy. Ebn Baithar and Galen cannot be rejuvenated, and the characters of alkaloids and oils are not changed by the re-arrangement, into new genera, of the plants which furnish them, but we find, nevertheless, an air of freshness and novelty about the book which is wanting in the usual compilations, and it represents a much larger amount of original work than they, both in actual discovery and in revision.

Clinical Lectures on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M.D., &c. Reported, edited, &c., with Notes, by T. M. B. CROSS, M.D. New York: D. Appleton & Co. 1874.

THIS volume, of 287 pages, is made up of a series of well-reported and interesting cases illustrative of many of the most important diseases of the nervous system, which, taken together with the remarks accompanying them, are well calculated to be of service, both to the students before whom the lectures were originally delivered, and to the general practitioner, the more so because the style of both writers is, in general, remarkably clear and pleasant.

The pathological anatomy of the various affections is entered into but little, an omission of some importance, although made in accordance with the plan of the work as stated in the preface; neither can it be said that the cases are critically discussed, as with the view of discovering new truths, but rather used to illustrate well-known types of disease.

The only further criticism we have to make is the one so often necessary,

that, even though it may be done to avoid creating confusion in the minds of hearers and readers, it is a mistake to refer to doubtful, or half, truths in terms which imply unqualified acceptance of them on the part of the writer.

Thus, repeated reference, without qualification, is made to the beneficial effect upon the circulation and nutrition of the brain, in cases of disease of that organ, of galvanization of the cervical sympathetic (pp. 7, 78, 208, 232), the cerebral vessels being made sometimes to dilate, sometimes to contract, in consequence of such treatment.

It could, however, hardly be denied that good observers are still at variance with each other as regards even the fact that benefit is ever to be obtained by this treatment, where the sympathetic nerve itself is not implicated in the disease.

Similar objections might be made to the statement (p. 162) that paralysis of the third cranial nerve in a case of locomotor ataxia should be referred to affection of the cilio-spinal centre of the spinal cord, and thereby of the sympathetic nerve.

Among the more particularly interesting parts of the work may be mentioned the chapter on convulsive (paroxysmal) tremor, an affection distinct from epilepsy, chorea and paralysis agitans, and first described by Dr. Hammond, in the *New York Medical Journal*, in 1867. But few cases have been observed, and its pathology is unknown.

A case of sclerosis of the posterior columns of the spinal cord is reported, in which the conduction of sensitive impressions was so much impaired that the astonishing interval of five minutes elapsed before the prick of a needle in the leg was felt.

A similar delay in the conduction of painful impressions in this disease has often been remarked, but no interval so great as this has, we think, been observed.

In cases of sciatica, Dr. Hammond has obtained excellent results from the deep injection of morphia (concentrated solution containing five grains to the ounce of water), even into the sheath of the nerve itself, which, after some experience, can be done, he says, with great accuracy, a thrilling sensation, running down the leg, being felt by the patient when the proper point has been reached. Sometimes a single, but oftener several, injections are necessary to complete the cure, and sometimes the relief is only temporary at best.

The popular prejudice against the continued use of ergot in large doses (a drachm of the fluid extract three times daily), is declared by Dr. Hammond to be entirely groundless, there being, in his opinion, no authentic case on record in which gangrene was thereby produced.

A useful and ingenious instrument for measuring the power of *continuous* muscular pressure with the hand is described, consisting of a dynamometer, to the index of which is attached a recording pen, which plays against a slide moved by clock-work, as in Marey's sphygmograph.

The absence of typographical errors and the excellence of the printing are very noticeable.

Nature Series. The Common Frog. By St. George Mivart, F.R.S. London: Macmillan & Co. 1874. Pp. 158.

This treatise, which has appeared piecemeal in *Nature*, is an excellent account of the natural history of the frog. It is not strictly an anatomical study. The phyiologist will look in vain for much assistance in his researches. We may turn aside, for a moment, to regret that there is no thorough, dry, practical anatomy of the frog, in which the shape of the bones, the origin and insertion of the muscles, the distribution of vessels and nerves is given with the accuracy and absence of all embellishment with which they are treated in human anatomy. We do not forget the anatomy of the *rana pipiens*, by the late Prof. Wyman; nor that a work, such as we speak of, was commenced some years ago, in Germany, and ended prematurely with the skeleton; both of these are excellent, as far as they go, but a text-book on the subject is still a desideratum.

The present work has little to do with anatomical details, except inasmuch as they are of peculiar significance in showing the zoölogical position and relationship of the animal. It is a very favorable specimen of what is known as popular science. There is none of the twaddle by which writers try to make science attractive to those unable to appreciate it. To understand the book, only a slight knowledge of anatomy is requisite, but yet there are many facts which may be new to even advanced students. The author begins by asking "What is a frog?" and the book is devoted to answering the question. As soon as we get into the subject, we find many points of interest which had not occurred to us. As the author says: "If the frog was only known by certain fossil remains, it would be considered one of the most anomalous of animals. Many persons are accustomed to make much of the distinctive peculiarities of the human frame. In fact, however, man's bodily structure is far less exceptional in the animal series, is far less peculiar and isolated, than that which is common to frogs and toads." Indeed, we treat the frog with contempt simply from our familiarity with him; were he as rare as the ornithorynchus, we should probably think him almost equally remarkable. Taking the different structures in turn, the author compares them with those of other classes of vertebrates, and points out several curious analogies. He takes the opportunity to make some covert attacks on the doctrine of evolution, of which he is a well-known opponent. It is truly no easy matter to suggest from what animal the frog can have been developed, according to the principle of the "survival of the fittest," and the fossil remains of extinct batrachians do not help us. The "missing link" in the frog's genealogy is less easily imagined than in that of man.

We can recommend the book to our readers as both interesting and instructive.

BOOKS AND PAMPHLETS RECEIVED.

Pharmacographia. A History of the Principal Drugs of Vegetable Origin, met with in Great Britain and British India. By Friedrich A. Flückiger, Professor in University of Strasburg, and Daniel Hanburg, F.R.S. London: Macmillan & Co. 1874. Pp. 704. (From James Campbell, Boston.)

Transactions of the Indiana State Medical Society. Indianapolis. 1874. Pp. 219.

Note sur un Moyen de distinguer la Mort Vraie de la Mort Apparente de l'Homme. Mémoire du Docteur Ange Monteverdi. Crémone. 1874. Pp. 19.

Nature Series. The Common Frog. By W. George Mivart, F.R.S. London: Macmillan & Co. 1874. Pp. 158. (For sale by James Campbell.)

Electricity as a Restorative Agent in Narcosis and Asphyxia. By John J. Caldwell, M.D. 1874. Pp. 8. (From the Virginia Medical Monthly.)

A New Tonic—"Boldo."—Researches have been made by Messrs. Dujardin, Beaumetz, and C. L. Verne on this proposed addition to our list of medicines.

Boldo is a tree found in Chili, of a height of five or six feet, isolated on mountainous regions, with yellow blossom and a verdant foliage. Its bark, leaves and blossoms possess marked aromatic odor, resembling a mixture of turpentine and camphor. The leaves contain largely an essential oil. It contains an alkaloid which is already called "boldine." Its properties are chiefly as a stimulant to digestion and having a marked action on the liver. Its action was discovered rather accidentally, thus:—Some sheep which were liver-diseased were confined in an enclosure which happened to have been recently repaired with boldo twigs. The animals ate the leaves and were observed to recover speedily. Direct observations prove its action; thus, one gramme of the tincture excites appetite, increases the circulation, and produces symptoms of circulatory excitement, and acts on the urine, which gives out the peculiar odor of boldo.—*Medical Press and Circular.*

Boston Medical and Surgical Journal.

Boston: Thursday, November 19, 1874.

The drainage question is a perpetual bugbear to us; we would gladly escape it, but it will not be gainsaid. On the one hand, we have present stench and imminent epidemics, and, on the other, we see enormous inconvenience and expense before relief can be obtained. These latter evils would not be so great were we certain that they would bring relief with them, but the more we consider the subject the more we are oppressed by its magnitude and difficulty. We refer to our own city, but as we fear that in a greater or less degree the trouble is very general, we would call to it the attention of all able to advise, and beg them to give us the benefit of their suggestions. In the meanwhile, we will do well to learn what we can from the experience of others. The Sanitary Commission of the *Lancet* has lately published a report on the drainage of Brighton, a town of considerable importance, and in summer one of the most frequented of English watering places. It appears to be a general rule that any town which for a few months in the year is called upon to provide for a great addition to its normal number of inhabitants is liable to suffer from sanitary troubles. The case of Brighton is in one respect different from that of most places, namely, that in great bathing resorts there are special objections to any plan of drainage which would pollute the water in the neighborhood.

In 1862, twelve years ago, attention was called to the bad state of affairs by the *Lancet*. Three-fourths of the houses drained into cesspools without outlets, the stench was terrible, the well-water much affected and the sea in front made unclean by the sewage of the town. After much discussion, a sewer was carried some five or six hundred yards out to sea in front of the town. Though the improvement was marked it was far from adequate, and, in 1868, the *Lancet* again took up the matter, and after further discussion more radical measures were resorted to. There is now a great sewer running to a point seven miles distant, which carries the sewage of Brighton and other towns out to sea. The diameter is five feet at the beginning and seven feet at the outlet. The expense was one hundred and fifty thousand pounds sterling, or three quarters of a million of dollars. The town certainly is entitled to great credit for the grand scale on which the work has been done, but, unfortunately, it appears that, after all, there is still much to be desired. The fall of this sewer is but twenty-one feet in its whole length, and this cannot be sufficient to keep it clean, particular-

ly in dry seasons, while its capacity is not sufficient in heavy storms, and old outfalls must still be used. Many, if not all, of the ventilators in the course of the sewer appear to be carried but a short distance above the ground, so that the emanations from them are very perceptible. Worst of all, the smells in the town itself are by no means abolished. Their origin is not clear, but the general opinion seems to be that they come from the remains of the previous accumulations, and if this is so they do not detract from the merits of the present system, but it is not certain that the continued use of closed cess-pools is not to some extent accountable for them.

It is greatly to be regretted that so much money should have been expended without a better result, and we call particular attention to the case as showing how many points must be taken into account in such an undertaking. We are not yet prepared to prescribe any treatment for our own disorders, but, as we are sure that great expense will be inevitable, we would have every point carefully considered before anything is done, so that we may have the full value of our money. Let us be but sure of this, and no outlay will be considered too great.

THE BEEF-TEA FALLACY. By A. MACKINNON, M.D., Stratford, Ont.—Many years ago, that greatest of chemists, Baron Liebig, proposed extract of meat as an agent of value in certain cases of extreme nervous and physical exhaustion. This proposition at once sent the medical world agog, and ever since it has been the custom, with practitioners generally, to prescribe extract of beef in all cases requiring a supporting treatment, and in not a few requiring no such treatment, in the full belief that the article in question was the most concentrated, and at the same time the most easily appropriated and life-giving aliment that the patient could have administered to him. The belief is general that extract of beef is the very quintessence of beef, and, as a matter of course, infinitely more nutritious than beef itself. Such being the opinions entertained, we need feel no surprise at the wide-spread custom of feeding the sick with beef-tea or extract of beef, to the exclusion, to a large extent, of other articles of diet, including beef itself. That this practice is almost universal I need not stop here to show, since the fact must be known to the most casual observer. Physicians, generally, are in the constant habit of ordering extract of beef as food, in all conditions, from enfeebled health to the most acute disease. If the patient is weak, he is at once ordered beef-tea; and if he is still sinking, he is ordered a still larger portion of beef-tea. Such is the practice, as we daily witness it, and such is the practice as seen in all civilized countries, and such will be the practice until many thousand lives more are added to those already sacrificed at the shrine of this stupendous delusion.

What would be thought of the physician who, when called to the bedside, ordered coffee for diet, and more coffee as the patient's strength failed. Of course he would be declared mad; but, as I shall endeavor to show, he is only a trifle more so than the man whose reliance is on extract of beef.

To the intelligent comprehension of the question, it will be necessary to briefly inquire into three points:—

1st. What tissue or tissues of the human fabric more immediately concern the performance of the functions and the continuance of life?

2d. What kind of food is best adapted to the production and support of such tissue?

3d. Does extract of beef contain such food in due, or any, proportion?

As to the first question, all science teaches us that fibrous tissue largely predominates in the higher order of animals, more especially in man. It is contained in bones, tendons and ligaments; nerves and bloodvessels are mainly composed of it; the connecting and various lining membranes are almost purely fibrous; and, lastly, the great muscular system is made up of bundles of fibres, including the heart itself, which is to the animal what the main-spring is to the watch. To enlarge here, would sound too much like demonstrating a self-evident proposition. It is only necessary to add, that every one must be impressed with the important part which fibrous tissue plays in the animal economy, and the paramount necessity of promoting its development and supplying its waste.

The second question is equally easy of solution, since science happily confirms what the experience of ages points out as the most nutritious kind of aliment. In this department of investigation, chemistry has opened up a wide field, the importance of which, to the intelligent physician, is daily becoming more and more apparent. No argument need here be advanced to show that it is from *nitrogenous* substances that muscle and the other fibrous tissues are developed, and the strength of the body maintained, since both observation and science have long ago placed these facts beyond the domain of dispute. *Non-nitrogenous* substances, therefore, do not directly impart strength or vitality to the system, although useful enough as auxiliaries. It is also admitted on all hands that next to milk and raw eggs, or eggs heated to a point short of coagulation of the albumen, the flesh of animals is the most easily assimilated of all food, being already elaborated, and requiring but little change before entering upon its final destination. If to this we add concentration of nutritive power, we can readily see why meat of all kinds, and beef in particular, should be esteemed invaluable as an article of food. It is on these theories that the extensive use of beef-tea and extract of beef is based.

I now come to the consideration of the question, whether the extract of beef contains the *azotized or nitrogenous* elements of beef. According to the foregoing conclusions—and I have taken nothing for granted—unless it can be shown to be nitrogenous in its ultimate elements, it cannot nourish the system nor impart direct strength to it. By this test, extract of meat must stand or fall. There is not one law for extract of meat, and another law for all other substances. The law is the same in all cases, and scrupulously impartial. At the beginning, I stated that Baron Liebig was the first to recommend the use of the extract of beef. It would appear, however, that he never recommended its *abuse*, for we find that a short time before his death he publicly repudiated ever having stated that extract of beef was food capable of sustaining life. A synopsis of the paper in which the veteran chemist vindicated his opinions, is given by the *London Medical Record* of April 16, 1873, and affords highly important evidence on a question on which he was, perhaps, better qualified to speak than any one else.

He wishes it to be distinctly understood that "he never asserted that beef-tea and extract of meat contained substances necessary for the formation of albumen in the blood or muscular tissue;" and "that, by the addition of extract of meat to our food, we neither economize carbon for the maintenance of the temperature, nor nitrogen for the sustenance of the organs of our body; and that, therefore, it cannot be called 'food in the ordinary sense,' but we thereby increase the working capabilities of the body, and its capacity to resist exterior injurious influences, *i. e.* to maintain health under unfavorable circumstances." The editor of *The Record* summarizes the remaining contents of the paper as follows: "Those constituents of meat which are *soluble* in boiling water take no part in the formation and renovation of the muscular tissues, but by their effect on the nerves they exercise a most decided influence on the muscular work, wherein meat differs from all other animal and vegetable food. He (Liebig) therefore places extract of meat (essence), and with it tea and coffee, under the head of 'nervous food,' in contradistinction to articles of 'common food,' which serve for the preserva-

tion of the temperature and the restoration of the machine. Beef-tea and extract of meat are of themselves incapable of supporting nutrition or maintaining life. Liebig, however, with justice, condemns the conclusions of those who, from comparative experiments on the nutritive value of fresh meat and meat-extract, taken *per se*, argue that the latter is not only useless for the purposes of nutrition, but positively injurious. It should be clearly understood that beef-tea and extract of meat are only to be regarded in the light of auxiliaries to food, rather than independent articles of nutriment."

From this, it appears "that by the addition of extract of meat to our food we neither economize carbon for the maintenance of the temperature, nor nitrogen for the sustenance of the organs of our body," that it cannot be called "food in the ordinary sense," and, hence, is placed side by side with "tea and coffee," under the general name of "nervous food." This is pretty hard on those who believe that extract of beef is beef "simmered down," or the quintessence of beef, and who place the utmost confidence in its nutritive and life-sustaining properties.

Science and common sense are here in perfect accord. No one ever dreams that the juices contain all, or any considerable part, of the nutriment of fruit. No one imagines that the brown liquid poured off his dinner potatoes carries with it the nutritious elements of that valuable vegetable, or that he would derive any benefit from using potato-tea. No one seems to think that his apple dumpling has deteriorated in the boiling, or that apple-dumpling tea contains all the nutriment that apple dumpling is capable of imparting. "Those constituents of meat which are soluble in boiling water take no part in the renovation and formation of muscular tissue." This quotation from Liebig's paper contains a lesson worth remembering, since it is as applicable to most other articles of food as it is to meat.

From this, it is evident the less artificial our food the better, whether in health or disease. Of late years, it has been too much the fashion to run after artificial preparations, such as extract of meat, concentrated milk, infant's food, chemical food, and the like. I have no hesitation in saying that such preparations are not only wholly unnecessary, but absolutely injurious under the ordinary circumstances of life. I grant some of them may be of use for purposes of travel, or under other conditions, placing the simpler and more natural articles of food beyond reach. To this I would make exception in favor of extract of meat, for, although it is not food in the ordinary sense, yet it may be given with advantage in cases ef extreme nervous and physical exhaustion.

A few years ago, every invalid was recommended to transform himself into a carnivorous animal. Copious instructions were given for the preparation of the meat, and confident promises of restoration to health were freely made. Civilized people, however, have always had an aversion to raw meat, and the practice, I believe, has not become very general. Raw meat is prepared for use by first beating it into a pulp. Lately, I have been in the habit of directing this pulp to be cooked, simply by adding boiling water to it and agitating the whole briskly. It may be made of any consistency to suit the individual taste, and savored according to the same rule. It may be allowed to infuse a few minutes, as thereby it is rendered more palatable to most persons. In cases of very feeble digestive power, a few drops of muriatic acid, well diluted, taken immediately after each meal, will greatly aid its digestion. This preparation is well suited to all cases where no hunger is experienced and mastication is irksome, or where food is loathed, and the digestive powers are feeble—in fact, in all such cases, as it has been the custom of late years to administer the imaginary food called beef-tea or extract of meat. I find that patients prefer the beef pulp, prepared as I direct, to the extract, while, in point of nutrition, no comparison can be drawn between them. I would only add that it is quite possible to place too much reliance on beef and brandy in cases of extreme nervous and physical exhaustion. New milk and fresh raw eggs are equally important, and there can be no reasonable doubt, that a due admixture of these and other articles,

judiciously administered, is the surest and speediest method of restoring to nature her exhausted strength.—*Canada Lancet.*

The Science of Disinfection.—Dr. John Dougall (Glasgow) read an interesting paper on this subject in the Health Section at the Social Science Congress at Glasgow. The author first alluded to the confusing diversity of opinion among scientific men on disinfection and disinfectants. Something less uncertain was required than mere conceptions formed or adduced from the property of impending or neutralizing putrefaction, or nullifying or masking the smell. Though the ultimate changes produced by putrefaction and fermentation were apparently the same, yet the phenomena of the two processes were as distinct as the symptoms of any two diseases or pathological lesions. This point constituted the foundation of scientific disinfection. A portion of fresh beef infusion grew putrid in twenty-four hours, and at the end of twelve months was still swarming with animalcules, cloudy and fœtid. Putrefying bodies yield very various offensive effluvia, according to their constitution and the surrounding medium. Putrefaction is characterized by the presence of myriads of animalcules, fœtor, haziness, neutral, alkaline, or faint acid reaction, and slowness of change. Fermentation consists of the presence of torulæ, mycelia and other cryptogams, mouldy aroma, transparency of fluid, acid reaction, and rapidity of change. Fresh organic matter, which if left alone would putrefy, could be made to ferment by adding to it a portion of a mineral acid. Also, if some acid be added to a putrid fluid, putrescence is arrested and fermentation induced; or, if added in larger quantity, putrescence is arrested and fermentation prevented, while the fluid, instead of being fœtid, actually becomes slightly fragrant. The result is the same when slight excess of acid is mixed with fresh or fermenting organic fluids, but no pleasant odor is produced. Judging from the manifestations of putrefaction and fermentation, it is obvious that the latter is harmless compared with the former; while their æsthetics are as different as their influence on health. Putrid matter evolving noxious effluvia for nearly twelve months must be more hurtful than fermenting matter almost odorless and fully decomposed in about four months. By the addition of a small proportion of acid to effete nitrogenous substances, fermentation may be substituted for putrescence, or both arrested, or both prevented. The torulæ and other fungi thus artificially induced are no more hurtful than those that grow in cheese, milk, fruits, &c., and are swallowed with impunity. By the proper application of these principles, typhoid fever and diphtheria, which are considered by many to arise *de novo* from putrid matter, might be prevented, and other zymotic diseases greatly diminished. The prevention of decomposition in organic substances by acids is preferable to causing fermentation, but fermentation is again better than antiseption; because, if antiseption be practised on offending matter containing zymotic poison, the poison is preserved as well as the matter, and thus antiseption is seen to be an admirable contrivance for maintaining a constant supply of zymotic germs for originating future epidemics. The use of a pure antiseptic, such as carbolic acid, as an antizymotic, is a palpable paradox, preservation being practised and destruction expected. There are no valid grounds, either on logic or fact, to assume, as is constantly but apparently unconsciously done, that, because carbolic acid arrests or prevents putrefaction, it therefore annihilates zymotic poison. Carbolic acid, in every way and with every advantage, totally fails to affect vaccine lymph; while sulphurous, nitric, acetic and hydrochloric vapor, chlorine, also potash, incorporated with the lymph, render it inert. All true science harmonizes; hence this fact might be inferred from the action of a pure antiseptic and of the stronger acids on organic matter. It was lately stated in American medical journals, that so signal was the failure of carbolic acid as a preventive of yellow fever in New Orleans and Mobile, that suspicion was awakened that its effects were positively injurious, and that it

helped to spread the disease. Dr. Dougall expressed his preference for chlorine, hydrochloric and sulphurous acids as antizymotics, and disapproved of using ferrous sulphate for infectious excreta, as it was merely a deodorizer. He gave a summary of the action of acids and alkalies on fresh, putrid and fermenting matter, and on vaccine lymph; also a classification, by Dr. Letheby, of the apparent *modus operandi* of disinfecting agents. In conclusion, he said two points were worthy of reiteration: 1. Putrefaction of organic matter may be impeded, arrested or neutralized, or the odor neutralized or masked, and yet any zymotic poison present in all probability be unaffected, preserved, or only made dormant for a short time. 2. The mineral acids are true disinfectants; they prevent putrefaction; they arrest putrefaction; they transform putrefaction into fermentation; they deodorize; and, what is most important, they are highly antizymotic as regards vaccinia, and therefore, *à priori*, of other contagia and infecta.—*British Medical Journal.*

SEWAGE GRASS AND SEWAGE MILK.—The *Medical Times and Gazette*, Oct. 31, 1874, contains an account of some observations made by Mr. Hutchinson Smee on the above subject. It will be recollected that at the time of the outbreak of typhoid fever in Marylebone, during the course of last year, the hypothesis was advanced that, inasmuch as the milk of the suspected dairy was in part produced from a sewage farm, we must seek from this fact the real cause of the outbreak. Experience did not support this view, but it was a matter of much importance to know how far and in what respect sewage grass differs from ordinary meadow grass as food for milk-giving cows. Mr. Smee "made an infusion from the tops of grass grown on the sewage farm, and also from a similar weight of grass from a neighboring meadow. The two samples of grass yielded

	Sewage farm grass per gallon.	Meadow grass per gallon.
Nitrogen, as ammoniacal salts,	8·4	2·8
Nitrogen, as ammoniacal organic matter,	1·4	·7
Nitrogen, as albuminoid ammonia,	12·6	5·6
	22·4	9·1

"From this analysis, it appears that sewage grass contains a large quantity of unassimilated nitrogenized matter, and it is not improbable that part, at least, of the albuminoid ammonia is sewage pure and simple, locked up in the cells and juices of the plants.

"The difference between the two sets of figures is truly astonishing, but perhaps the most astonishing is the difference between the albuminoid ammonia—that is to say, the albuminous substances probably partially converted into part and parcel of the plant."

Cows of a similar breed and milking qualities were set aside for the purpose of these inquiries, but it was found impossible to obtain a very satisfactory standard.

Mr. Smee states that "cows which he had fed exclusively on sewage grass have lost flesh and have done badly, even when they have been fed on a mixed diet, substituting only sewage for meadow grass. The following is the analysis of two shorthorn cows, which, before the experiments, were equal in quantity and quality of milk:—

	Water.	Solids.	Casein.	Fat.
Sewage fed,	86.3	13·7	2 5	2·5
Ordinary fed,	86·2	13·8	3.2	3·0

"The cream from these cows was set aside, and the time required for churning into butter was:—

Sewage, 2½ hours;	1½ hours;	butter soft, 2½ hours.
Ordinary, 35 minutes;	1½ "	butter firm, ¾ hour.

"Pats of butter were set aside and kept until they went bad; it was invariably found that the sewage butter became rancid many days before butter made from meadow grass did so. More curiously still, however, it was found that 'sewage milk, when placed on one of Graham's dialysers, on several occasions, but not invariably, behaved in a remarkable manner. The casein appeared to separate from the milk, and streamed through the membrane, and fell to the bottom of the vessel containing water. The casein evidently existed in the milk in some allotropic condition. The phenomenon was never noticed in other milks.'

"The results are certainly very interesting and very curious, but, as Mr. Smee himself says, it is by such investigations, long and carefully conducted, that in the end the truth must be sought."

SCARLATINAL WAVES.—*The British Medical Journal* of October 17, 1874, in an editorial on this subject, states that the scarlatinal wave for a year is nearly always at its lowest point in spring, and at its highest, late in autumn, usually in the months of April and November. This may be called the annual wave, and varies but little in its course, whether the disease be epidemic or not. An examination of the deaths in the metropolis (London), recorded during thirty-two years, shows that the *lowest* point in each year was reached, on fifteen occasions, between the tenth and fifteenth weeks, and in nine others between the fifteenth and twentieth weeks; that the *highest* point in each year was reached, on sixteen occasions, between the fortieth and forty-fifth weeks, and on thirteen between the forty-fifth and fiftieth weeks. The total mortality in the thirty-two years, during the five weeks which are included between the beginning of the eleventh and the end of the fifteenth week, amounted to 5,204 deaths, whilst during five weeks which are included between the beginning of the fortieth and the end of the forty-fourth week in the same year, the deaths amounted to no less than 12,172.

Another wave, which may be called the *periodic*, may be represented by a line connecting together the mortality from the disease in each year, and indicates the years in which it is epidemic or non-epidemic. An examination of the mortality in each of the thirty-four years ending Dec. 31, 1873, shows that the disease was epidemic in 1840, 1844, 1848, 1852, 1854, 1858–59, 1862–64 and 1868–70; whilst the smallest mortality occurred in 1841, 1846, 1851, 1857, 1861, 1867 and 1873. It is, therefore, evident that the curve of the descending is much more gradual than than that of the ascending wave, as the epidemic takes a longer time to subside than to rise again. The almost uniform recurrence of the disease as an epidemic, after three years of comparatively small mortality, is very noticeable in the figures just quoted.

What are the causes of this periodical increase in the height of the scarlatinal wave? Does it arise from seasonal influences, or other causes at present unknown? To this we can only reply, at present, that the careful comparisons made by Dr. Tripe in 1848, and by Dr. Richardson some years afterwards, show that a temperature below 44·6° Fahr. corresponds with the spread of scarlet fever, whilst a temperature above that point is coincident with an increase in the mortality; also, that the greatest mortality in the year occurs when the temperature ranges between 49·6° and 56·9°, but that the movement in the mortality does not occur in the same ratio with the increase in the temperature. This latter conclusion might have been expected from the comparative regularity with which the disease assumes an epidemic form every four years, whilst there are not, so far as we know, any corresponding sequences in any of the atmospheric phenomena. There is one important consideration respecting scarlatina, as well as smallpox and other eruptive diseases which occur ordinarily only once in a person's life, which must not be forgotten, viz., that in the interval between one epidemic and another a number of children are born who are susceptible to the disease from not having had it, and that the epidemic may chiefly take its origin

by the disease occurring in localities where there are many children unprotected, and thus spread rapidly to persons in the immediate vicinity. This can hardly explain its periodicity, although it accounts for the greater number of cases when the outbreak occurs.

KLEIN ON THE ANATOMICAL CHANGES IN TYPHOID FEVER (*Medical Times and Gazette*, Oct. 24, 1874).—Dr. Klein, of the Brown Institution, has lately made some interesting observations on the above subject. Sections of the hardened ileum of typhoid patients show, according to him, that an active absorption of peculiar organisms goes on in the mucous membrane of, and especially around, the Peyer's patches. These organisms are carried thence into the lymph-canals and the vessels of the mucous membrane.

In the earliest case which he examined, where death had occurred on the seventh day after the first appearance of headache, the crypts of Lieberkühn were found to contain peculiar greenish-brown spheroidal corpuscles of very variable size, the largest twice or three times as big as a human red blood-corpuscle, the small ones only half or a quarter as large. When the bodies lie closely grouped together, as is generally the case, they appear of a dark olive-green color; and the corpuscles at the edge of such masses, or where they are completely isolated, exhibit transitional forms, due to incomplete subdivision. Similar corpuscles are found in the tissue of the mucous membrane, where they appear to be contained in the lymphoid cells of the adenoid tissue. The minute veins, and also some of the lymphatic vessels, contain large numbers of them, and in the former they subdivide rapidly, so as to form greenish-yellow granular micrococci, arranged in groups of two or four, as well as in rings and other figures. The micrococci have their origin in a mycelium whose filaments are branched and apparently smooth, and of a greenish-yellow color. These organisms occur not only in the neighborhood of Peyer's patches, which are moderately swollen, but also in parts of the mucous membrane which to the naked eye show no alteration except slight general swelling, although, microscopically, the follicles of the patches in one case were found to have undergone the following changes:—The central part of the follicle, especially where it lies in the submucous tissue, was converted into a spongy substance by the formation of spaces around its bloodvessels, their wall consisting of the adenoid tissue with which the latter are sheathed. The lymphoid cells of this tissue were converted into large granular bodies containing two to five or even more nuclei, which greatly resembled the nuclei of endothelial cells. In several of the follicles true giant cells were seen.

In a later stage (twelfth day), the mucous membrane itself showed somewhat similar changes, and the multinuclear lymphoid cells were found in its venules and in those of the submucous tissue, as well as in the lymphatics of the latter. Dr. Klein is unable at present to give a decided opinion whether the above alterations are directly dependent on the presence of the micrococci, or whether they must be considered as secondary to changes in the vascular system. The passage of micrococci inwards from the free surface of the intestine can be traced through the epithelium into the substance of the mucous membrane, and especially towards the crypts of Lieberkühn; and this occurs in parts which are some distance from the swollen Peyer's patches, and which appear nearly or quite unaltered to the naked eye.

IT is said that Tanner's *Practice* has had the greatest success of any medical publication in England for many years. Several editions of five thousand copies each have been sold.—*Medical and Surgical Reporter.*

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

REPORT OF OPERATIONS.

Service of Drs. Bigelow and Cabot. Saturday, November 7, 1874.

1. Fatty Tumor of Thigh.
2. Large Erectile Tumor of Cheek and Neck.
3. Benign Parotid Tumor.
4. Sarcoma of Superior Maxilla.
5. Chronic Mammary Tumor of Breast.
6. Abscess of Knee.
7. Fatty Tumor of Arm.
8. Foreign Body in Hand.
9. Hydrocele.
10. Fistula in Ano.
11. Necrosis of Inferior Maxilla.
12. Fistula in Ano.

1. The case of fatty tumor removed by Dr. Bigelow offered points of interest. Of the size and form of a goose-egg, it was situated in the outer part of Scarpa's triangle, prominent, firm and adherent to the muscles. It was a little movable from side to side, but not at all so in the axis of the limb. From its upper part, a firm band, supposed to be the sartorius muscle, united the tumor to the anterior superior spinous process of the ilium. Its circumference was rounded, without lobes, while the whole mass was singularly hard and unyielding. Under these circumstances, and in view of its locality, a frequent seat of malignant tumor, and considering the age of the patient, a gentleman of sixty, Dr. Bigelow entertained little doubt of its sarcomatous and locally malignant character. He advised its removal only as giving the patient an additional chance. The tumor, said to have been growing only a year, and to have followed a fall, had been examined by distinguished surgeons, who had, on the above evidence, advised against surgical interference. It proved to be an inter-muscular, egg-shaped fatty tumor, without lobes, and presenting to the touch an almost cartilaginous hardness. The band supposed to be the sartorius muscle proved to be fibrous.

2. An enormous erectile tumor of cheek and neck, in a baby four months old, was of congenital origin, had doubled in size within two months, and was nearly oblong in shape. It measured six inches in its longest axis, and projected three inches from the surface. Its inferior portion occupied the whole sub-maxillary triangle, involving the lobe of the ear, while the mass extended upward nearly to the malar bone. It did not pulsate, but, when squeezed, was rapidly again distended. The surface of the tumor presented a number of spots having the usual appearance of nævi. Dr. Bigelow, remarking that he feared to break the skin, transfixed the base of the mass with two mattress needles passed at right angles. The growth was then strangulated in four sections, by stout ligatures carried from the projecting needles across the top and around its base. The mass sloughed off on the 11th inst., leaving a large wound. The baby seemed doing well.

4. The sarcoma of the upper jaw presented the usual appearance of a malignant tumor of the antrum. The patient was an elderly female, who insisted on some attempt to relieve by operation her excessive pain in that region. With no hope of curing the disease, Dr. Bigelow divided and raised the cheek, and excavated from the antrum the malignant mass, which proved to be a round-cell sarcoma.

6. A young woman had entered the house with a large abscess, involving the whole anterior surface of the knee-joint, including its outer and inner aspects. Prominent and painful, the swelling had existed about a month, without known cause or antecedent tumor. The absence of constitutional symp-

toms and the freedom with which the joint itself could be moved and handled, indicated a probably extra-arthritic lesion, a diagnosis which a free incision verified.

H. H. A. BEACH, M.D.,
Surgeon to Out-patients.

Bibliographical Notices.

THE Hospital Sunday fund in London amounted to £4,000. It cost £1,100 to collect it.

THE autumn manœuvres of the troops at Versailles have been followed by a severe epidemic of typhoid fever among the soldiers.

THE last number of the *Nashville Journal of Medicine and Surgery* triumphantly refutes the base charge brought against it of "highfalutin rowdyism."

MR. WM. A. BLANCHARD, of the former firm of Lea & Blanchard and Blanchard & Lea, well-known publishers of medical works in Philadelphia, has recently died in that city.

ADULTERATED TEAS.—It was stated at a recent meeting of the City Commissioners of Sewers, that there were millions of pounds of spurious tea in the wharves and warehouses of the city of London, some of which had been accumulating for thirty or forty years. The attention of the sanitary authorities was directed to the fact.—*British Medical Journal.*

DR. J. HUGGINS, of Alabama, contradicts the generally received statement that club-foot, hare-lip and other congenital malformations are rarer in the negro than in the white man. He thinks the reverse is the case, and adds that the negroes in the larger cities are far better specimens of the *genus homo* than their country cousins.

MR. BRIGHT, being invited to be present at a conference of anti-vaccinators, declined to take any part in it, and gave his opinion that the facts were against the anti-vaccinators. He, however, expressed his doubts as to the wisdom of compulsory vaccination, and he "felt that the law which inflicts any penalty on a parent who is unwilling to have his child vaccinated is monstrous."

MEDICAL DEPARTMENT OF DARTMOUTH COLLEGE.—The graduating exercises were held Nov. 4th. Degrees were conferred on twenty-three students. Six of these gentlemen were from Maine, five from New Hampshire, Vermont and Massachusetts each and two from New York. The class consisted of twenty-eight. We regret not to have been informed how many candidates for degrees were unsuccessful.

DEATH FROM SMOKING.—The case is reported in France of a young man who perished in attempting to smoke twelve cigars for a wager. At the eighth cigar he began to feel uncomfortable, at the ninth he had chills and dizziness, which became more severe with the tenth. He still refused to stop smoking, but consented to go home with two of his friends. He was then attacked with vomiting and pain in the abdomen, and, in spite of professional assistance, he died in the night. It should be stated that the heart was hypertrophied.

THE CARRIER PIGEON.—The travelling pigeon never feeds. If the distance be long, it flies on without stopping to take nutriment, and at last arrives thin, exhausted, almost dying. If corn be presented to it, it refuses, contenting itself with drinking a little water and then sleeping. Two hours later, it begins to eat with great moderation, and sleeps again immediately afterwards. If its flight has been very prolonged, the pigeon will proceed in this manner for forty-eight hours before recovering its normal mode of feeding. —*Union Médicale; Medical Times and Gazette.*

UNPROFESSIONAL CONDUCT.—We received, some time since, an article from a well-known practitioner in this State, who is still a member of the Massachusetts Medical Society; but before its turn for publication came we noticed the name of the author over a paper in an eclectic medical journal. Whatever doubts we then felt as to our duty to reject the article were shortly dispelled by seeing in another irregular journal the very case which we still have in our drawer.

BENZINE IN SEBORRHŒA.—Mr. Canty, of Liverpool, in his late work on "Cutaneous Medicine," recommends as the best solvent for sebum, benzole, either pure or as a lotion. "If," he says, "there are collections in the convolutions of the ear where instruments can only be inconveniently used, pure benzine, applied with a brush, will readily dissolve the sebum, leaving the central black spot quite intact, as a pillar of dirt and hairs in a cavity. If used on the face, back or shoulders, some camphorated oil being added to ten times the quantity of almond oil, the mixture should be rubbed into the skin at night. In the morning, the benzole lotion should be applied with a sponge or flannel, and afterwards the parts well washed with warm water and soap." He gives the following formula:—

℞. Benzole, ℥ss.;
Gum tragacanth, ℥ss.;
Water, ℥viij.

—*Medical and Surgical Reporter; New Remedies.*

NOTES AND QUERIES.

Is it true that any man (*Medical Times and Gazette*, p. 489) can practise medicine in England, even without State authorization? There are some regulations and restrictions surely. We had supposed the law to be very stringent in these matters. Who can tell us, for at this distance the whole matter there seems to be in a muddle? DIPLOMA.

ANTHELMINTICS.—"Dr. White said . . . . as a practical point, it was very extraordinary how a tape worm, after resisting almost every kind of treatment, would finally be killed by a dose of something."—*Last number of this Journal*, p. 475.

Query.—Did it never occur to anthelmintologists that a tapeworm is a mortal creature, and that, when by reason of age or other infirmity its time of departure is at hand, it may be killed by almost anything that greatly disturbs the alimentary canal of its "host"? KEPHALEPEP.

DIED,—In New Bedford, Mass., October 9th, of membranous croup, John Bradford, aged 5 years and 3 months, youngest son, and, October 27th, of diphtheria, George Henry, aged 12 years and 11 months, eldest son, of Dr. John H. and Alice W. Mackie.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending November 7, 1874.*

Boston, 129; Worcester, 15; Lowell, 21; Chelsea, 7; Cambridge, 20; Salem, 9; Lawrence, 8; Springfield, 15; Lynn, 13; Gloucester, 10; Fitchburg, 2; Taunton, 5; Newburyport, 3; Somerville, 13; Fall River, 13; Holyoke, 8. Total, 289.

Prevalent Diseases.—Consumption, 34; pneumonia, 25; typhoid fever, 14; scarlet fever, 12; cholera infantum, 11; diphtheria, 7; croup, 7.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 14, 143. Males, 74; females, 69. Accident, 3; asthma, 1; anæmia, 1; inflammation of the bowels, 3; disease of the bowels, 1; bronchitis, 6; inflammation of the brain, 3; congestion of the brain, 2; disease of the brain, 3; cyanosis, 1; cancer, 2; cholera infantum, 2; consumption, 28; convulsions, 2; croup, 2; debility, 3; diarrhœa, 2; dropsy of the brain, 2; diphtheria, 1; exhaustion, 1; scarlet fever, 4; typhoid fever, 4; gastritis, 1; disease of the heart, 9; disease of the hip, 1; disease of the kidneys, 1; disease of the liver, 2; congestion of the lungs, 3; inflammation of the lungs, 16; marasmus, 7; measles, 2; old age, 9; paralysis, 1; pleurisy, 1; premature birth, 2; peritonitis, 1; puerperal disease, 1; rheumatism, 1; ulcer of the stomach, 1; tabes mesenterica, 3; teething, 3; unknown, 1.

Under 5 years of age, 54; between 5 and 20 years, 11; between 20 and 40 years, 24; between 40 and 60 years, 26; over 60 years, 28. Born in the United States, 100; Ireland 28; other places, 15.

THE

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Original Communications.

WOUND OF THE FEMORAL ARTERY. LIGATURE OF THE EXTERNAL ILIAC. SUBSEQUENT AMPUTATION. RECOVERY.

By DAVID W. CHEEVER, M.D., of Boston.

ON February 29, 1872, T. S., a healthy boy, of 16 years, had a quarrel with a companion on board the School-ship. Shortly after, as the boys were sitting side by side, his adversary, in rising, struck the patient a back-handed blow with a knife. The wound was a narrow, punctured one, in the left groin, just below Poupart's ligament. Its direction was downwards and inwards. Profuse hæmorrhage immediately came on. The officers of the ship twisted a rope round the groin, and partially arrested it. Meanwhile, physicians arrived, and finally stopped the bleeding by a large pad, compress, and tight, spica bandage over the wound. These were temporary measures, and the only ones that could be employed at the moment. The patient's condition was one of alarming syncope; and, at one time, the radial pulse ceased. He slowly rallied, after the bleeding was stopped, and was then carefully transported to the City Hospital, where he arrived safely, and without farther hæmorrhage. The bleeding being under control, it was thought best to await the progress of events. He was confined to bed, and a special watch set over him. Matters went on quietly for forty-eight hours. He ate a good deal, slept, and recovered animation and strength. In the afternoon of March 2d, as the patient was raising his back for the bed-pan, hæmorrhage came on. The assistant immediately arrested it by pressure with the hand; and the house-surgeon, arriving, cut off the bandage, applied a new compress, and secured the bleeding by a tourniquet and roller-pad directly over the wound. Not more than two ounces of blood were lost.

I was then sent for, and at 7, P.M., had the patient etherized, in order to attempt more permanent measures to arrest the hæmorrhage. On removing the tourniquet and compress, the color, force and quantity of the blood poured out did not leave much doubt that we had to deal with a wound of the femoral artery. It was found that the bleeding came very nearly from under Poupart's ligament. Bleeding could be controlled by pressure of the fingers in the wound; and, aided also by pressure over the bone above, the wound was enlarged, and attempts made to secure the bleeding vessel in the wound. Repeated gushes of blood, however, foiled our efforts; and as the patient was again becoming very feeble, it was deemed more prudent to secure the main trunk above. The tourniquet and roller-pad were again applied to the wound, and the bleeding wholly checked.

An incision was made above Poupart's ligament, curving upwards and outwards towards the spine of the ilium. The muscles and transversalis fascia were cautiously traversed; the peritoneum was pushed back, and the external iliac artery tied with a silk ligature. It was now considered wisest to guard against recurrent hæmorrhage by tying the vessel in the wound. And, by a little dissection, it was demonstrated that the femoral artery was about half cut through on its posterior wall, just below Poupart's ligament. Ligatures were applied here, and both wounds united by silk sutures. The patient rallied well, and no bleeding recurred. From first to last, there was no peritoneal inflammation.

March 3d.—No hæmorrhage. Pain in left foot. Temperature of legs alike.

March 4th.—Great pain in leg and foot complained of. Relieved by morphia. Patient feeble. Pulse 150. Fed on milk punch. Temperature of right leg, 101°; of left leg, 92°. Distal phalanges of toes of left foot livid; sensation diminished there. Left leg and foot enveloped in cotton batting.

March 5th.—General condition better. Pulse 108. Wounds look healthy; less pain complained of. Temperature, right leg 100°; left leg 92°; one-half the foot blue.

March 6th.—More pain in leg. Temperature of left ham, 97½°. Entire foot mottled with livid lines.

March 9th.—Temperature of *both* popliteal spaces 100½°. Pulse 120; less pain.

March 13th.—Line of demarcation formed half way between ankle and knee. Foot and leg in a condition of moist gangrene, and quite offensive. The limb was imbedded in powdered charcoal.

March 24th.—General condition improving. Ligature came away from iliac artery (22d day). Wound doing well. Soft tissues of leg quite sloughed through.

March 29th.—Condition good. Spontaneous amputation down to tibia and fibula. Etherized; masses of granulations pushed back; bones denuded higher up, by scraping back the periosteum, and the bones sawed off. Moderate hæmorrhage.

May 10th.—The amputation has not resulted well. The bones are exposed; the stump is painful, and a raw, granulating surface extends up beneath the calf to the ham. Patient has three bed-sores. The wound in the abdomen is still open.

May 13th.—The limb was amputated above the knee by Dr. Ingalls.

May 18th.—Stump doing well.

May 22d.—Extension applied to draw down the flaps, which tend to retract.

May 25th.—Doing better.

June 23d.—There is an exfoliation of bone.

July 12th.—The periosteum was scraped back, two and a half inches of necrosed bone sawed off, the cicatrix was cut out, and the edges of the stump brought together.

July 20th.—Stump doing admirably.

July 30th.—Wounds all healed. Discharged, well.

It would appear that the vitality of the limb was so impaired by the ligature of the iliac artery, that nature could not cover in her sponta-

neous amputation, as she often does after frost-bite; nor could she repair an amputation of the thigh, even, without necrosis and shortening.

NITROUS OXIDE GAS.

By H. J. Barnes, M.D., of Boston.

Read before the Suffolk District Medical Society, October 31, 1874.

Since the discovery of the anæsthetic properties of ether, in 1846, the subject of anæsthesia has occupied so large a portion of our literature that, reluctantly, I invite your attention to another chapter.

But with the object of correcting what seem erroneous views respecting the administration of nitrous oxide gas, which have recently been published, and to show how it may be made useful and practicable, in place of ether, for painful examinations, short operations, and the adjustment of broken bones, this paper is prepared.

In the Journal of September 22, 1852, Vol. 48, No. 8, this subject was referred to in a communication by H. A. H., replying to the question, "Is nitrous oxide gas an anæsthetic?" The writer begs leave to reply, briefly, that it is not, and challenges the production of a case proving it is; after which, he cites the experiments of Davy, who said he breathed the gas for a week, and at the end had an increase of sensibility to pain, and it only proved to be intoxication. In a number of subsequent papers, in the same volume, these statements are refuted by numerous satisfactory experiments. But, since that time, the subject seems to have attracted little attention, until a case of death from its use was reported in the *Lancet* of February, 1873, page 174, which, by the way, is the only disastrous result from its use I have been able to find. The writer, in a review of the case, remarks "that a dentist stated to him 'that he never extracted a tooth until breathing had temporarily ceased;'" and then, in regard to this case, says "the first symptoms were rapidity of pulse, with diminution of volume, but the immediate cause of death was paralysis of respiration. Nitrous oxide gas, indeed, is not an anæsthetic at all. A true anæsthetic is an agent which suspends sensibility without, by any necessity, interfering with those processes on the continuation of which life depends. Nitrous oxide acts not in this way, but by suspending, for a brief period, one of the most important of the organic processes, that of respiration itself. For the reason named, the insensibility produced by the gas is a period of partial death. This interval, transient, doubtful, dangerous, may allow an operator time for a short operation, and, the agent away, the suspended function may return." A French chemist, writing recently on this subject, says "the gas only asphyxiates." Within a year, I have read an article in the Boston Medical and Surgical Journal, mentioning the attendant asphyxia when anæsthesia is produced by gas.

By the courtesy of the dental firm of Drs. Ball and Fitch, of this city, for the past four years, I have been permitted to use their office and gas for such operations as I saw fit, and I have had the advantage of many valuable suggestions as the result of their ten years' experience with the gas, during which time it has been administered by them not less than 15,000 times.

Ordinarily, a person is anæsthetized in from one to three minutes, by from twenty to one hundred inhalations of the gas, by which three or four gallons are consumed. The gentlemen spoken of recall but two patients who could not be brought under its influence. After breathing the gas continually for ten minutes, neither was sensibly affected in pulse, respiration or consciousness, and it was given up.

They remember a larger number, who, at the period of excitement, resisted its administration, and it was, for this reason, obliged to be suspended, they not having the means necessary to confine the patient, and compel the continuance of the inhalation through this stage.

Excitement, intoxication and narcotism are as distinctly observed as when ether is used, and this, too, without asphyxia, for this is accidental and not the necessary result.

The popular notion that it only asphyxiates, is, perhaps, explained by the imperfect method of administration when first used, inhalation and exhalation being carried on through a single opening, into a rubber bag, holding from five to ten gallons, necessitating the continued breathing of air and gas used many times. This is now changed, and inspiration is from the gasometer; while expiration closes the opening, and is carried on through another communicating with the surrounding air.

Asphyxia is now a comparatively rare occurrence, particularly if we follow the rule I quote from Dr. Bigelow's paper, entitled, "Alleged Death from Ether," published last year in the JOURNAL of Nov. 20th. "We should aim at anæsthesia by inebriation, not by asphyxia." If lividity be noticed when gas is used, a half turn of the stop-cock admits air, and the same relief is the result as when this condition follows the administration of ether and the sponge is removed.

The advantages in using gas in place of ether are briefly as follows:

The shorter time required to anæsthetize.

It is more agreeable.

There is rarely subsequent vomiting.

Its effects pass off quicker, three or four minutes being usually sufficient.

There is no danger of ignition when used.

The cost is very much less. Fifty dollars will purchase a complete apparatus for its manufacture, and about four cents a gallon will pay all other expense.

It is made from the nitrate of ammonia, which is placed in a glass retort over a spirit lamp. It quickly melts, and, apparently, boils, but it really undergoes decomposition, and is resolved into gaseous nitrous oxide and steam. It is passed through four jars, holding about two gallons each of water, and one, containing a solution of potash, to remove impurities. It is then conducted to the gasometer, and is ready for use.

The compressed or liquid gas is put in iron jars, holding what is equal to one hundred gallons of gas. These are filled, at six dollars each, and put in portable boxes, a foot and a half long, and about eight inches deep. With an inhaler, a rubber bag as a reservoir for the gas, and the necessary rubber tubing, the price is forty-eight dollars.

I have not observed hilarity as often in patients under its influence as with ether. A few pugnacious, excitable people are with difficulty

carried through the different stages without a struggle. Usually, the gas is taken from this class when their ruling passion is manifested. After the excitement has passed, a little explanation of its effects dissipates their fear, and, with renewed inhalation, they go off quietly.

Ten minutes is the longest time I ever kept a patient under its influence. There were no unpleasant symptoms accompanying or following its use in this case, which was for the removal of a small tumor over the orbit. I should not hesitate to continue it longer, were it necessary, and, since writing this paper, I have been informed, by Dr. W. H. Baker, of its employment in two cases of ovariotomy, one of them lasting over an hour and a half, during his service in the Women's Hospital, of New York.

I have used it thirty-five or forty times in the removal of wens, opening abscesses and felons, the extraction of in-growing nails, &c., and in each case the effect was satisfactory.

The expense and inconvenience of transportation will, perhaps, preclude its general employment in private practice, but, for hospitals, it seems particularly adapted.

Translation.

SUBCUTANEOUS SYMPHYSEOTOMY.

By Doctor Piccinini, of Cassano Magnago, Lombardy.

(From the Lyon Médical, October 25, 1874.)

Though symphyseotomy was born in France, it was soon abandoned there, and if modern text-books give it a place among obstetrical operations, it is only on account of its historical interest.

Professor d'Erchia Pietro (of Naples) attributes the rejection of this operation to three causes. The first is the accepted custom in France and England of always sacrificing the child for the safety of the mother; the next is the invention of Baudelocque's cephalotribe, which is superior to the hook of the English practitioners; and, lastly, the prevalence of induced premature labor, which permits us to avoid the disagreeable consequences of a pregnancy, by arresting it at any given moment.

It appears to me that, beside the causes mentioned by d'Erchia, there is another of greater importance; namely, the want of a definite rule to decide for the surgeon how much pelvic contraction indicates, and how much forbids, symphyseotomy, followed by the immediate application of the forceps. This is what has induced me to publish the ideas which guided me in this operation, which I performed with perfect success in May, 1870, saving both mother and child.

Symphyseotomy, in cases where the contraction had reached two inches and a quarter (about 65 millimetres), had given such bad results that it was soon abandoned. It was, therefore, important to fix precisely the degree of narrowing which permitted the operation, the moment at which it was indicated, and the immediate and subsequent precautions which should insure its success.

Symphyseotomy, that is the section of a fibro-cartilage, is, in itself, an equally harmless and simple operation. Joulin alleges that it is impossible, beforehand, to determine with perfect accuracy the amount

of contraction and the volume of the fœtal head, so that it might be necessary to follow the first operation with a second, to wit, the application of the forceps, and that this would add greatly to the danger of the former, and would be liable, according to him, to rupture the sacro-iliac ligaments. I do not hesitate to treat such allegations as absurd.

In the first place, it is rare for an experienced practitioner, with the many accurate instruments we now possess, to fail to determine exactly the amount of contraction. There is no reason to fear the application of the forceps, which, according to me, should follow every symphyseotomy, and I never have had occasion to deplore the accidents to which Joulin alludes. I presuppose, of course, that the forceps are applied by a skilful accoucheur. According to Joulin, symphyseotomy will permit the separation of the articular surfaces to the extent of from one inch to one inch and a half, which he holds corresponds to merely one centimetre's increase of the antero-posterior diameter. Experience shows that this is not the case. Professor d'Erchia has performed symphyseotomy in a case of contraction to two and one-fourth inches (65 millimetres), and according to me it should not be done where there is less than three inches (80 millimetres), and with the forceps he delivered a living child immediately afterward. The mother survived this application of the forceps, which, according to Joulin, should cause death by tearing the sacro-iliac ligaments.

As for me, the results of my practice are sufficient data; the amount of space permitting the operation is from three to three and one-half inches; after the operation, the forceps should be applied with care, and, by gentle traction and slight rotary movements, the child will be gradually delivered without further pain to the mother, or any traumatic complication. With a contraction to three inches, symphyseotomy will give an additional half inch, and the forceps as much more, making the antero-posterior diameter practically four inches, which is, certainly, a most satisfactory result.

Position of the Patient.—The woman should lie on her back, on a strongly inclined plane, the pelvis supported by a pretty hard cushion, and the head being the lowest part. It is clear that by this position the head of the fœtus is prevented from pressing on the pubes, and the operation is thus facilitated.

Preparatory Catheterization.—It is indispensable that the bladder should be empty during the operation; apart from the gain in the antero-posterior diameter, the bladder will be less exposed to injury from the instruments. It is well, after the evacuation of the urine, to depress the bladder with the point of the catheter, or, better still, to put it on one side, lest it should be caught under the arch of the pubes during delivery.

The Section of the Fibro-cartilage is to be performed by the subcutaneous method, according to the usual rules. The fold of skin may be made above the clitoris, and the best instrument is a slightly-curved tenotomy knife, with a blade which must offer a certain amount of resistance.

A Bandage for the Body must be arranged beforehand, and, after the operation, moistened with a solution of gum, so as to make it immovable. Its object is to prevent any separation of the thighs, either by a

movement of the patient, or by an accident on the part of those carrying her; indeed, she should not be moved till it is nearly dry. By the subcutaneous method, the suppuration is avoided which would otherwise increase the dangers. Another advantage is the suppression of sutures; for the soft parts, which, by this method, are spared, contribute greatly to holding the pubic surfaces in place.

To recapitulate, the conclusions of this paper are the following:—

1st. Never perform symphyseotomy when the pelvis is contracted to less than three or three and one-half inches (80 to 95 millimetres);

2d. Operate by the subcutaneous method;

3d. After section of the cartilage, apply the forceps;

4th. The position of the patient, the previous catheterization, the immovable bandage are details of great importance to the success of the operation.

To conclude, let me recall the statistics of symphyseotomy during five years at the hospital at Naples. Operations, 19; women saved, 15; children saved, 16.

Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

(Concluded from page 491.)

Desquamative Inflammation of the Middle Ear.—Wendt (*Archiv der Heilkunde*, vol. xiv.) continues his very thorough and interesting investigations on the pathological anatomy of the ear, by studying, clinically and anatomically, the tumor of the ear, which has been described under the name of cholesteatoma, or pearl-tumor. Such tumors have generally been described as a new growth, and have been so considered by Virchow, Gruber, Lucæ and others. Some other authors have even considered that they were closely allied to epithelial carcinoma. They are generally found either in the tympanum or mastoid cells, where the mucous membrane has been chronically inflamed and ulcerated, and consist of a pearl-like, oval or round mass, easily removed, which can be broken up into whitish lamellæ. Under the microscope, these lamellæ show large and small epithelial cells in a degenerated condition; between these cells are masses of cholesterine crystals and fat. The tumor generally fills the cavity in which it lies, and, by its growth, causes a destructive ulceration of the neighboring tissues, even the bone. Gruber mentions preparations in which the tumor has destroyed and replaced the entire petrous bone. In a previous report, ten cases of such tumors reported by Lucæ were noticed, in all of which there had been more or less destruction of the bone.

Some years ago, von Tröltsch, however, opposed the theory that the cholesteatoma was an independent and primary new-formation, and regarded it merely as a collection of inflammatory products, "a kind of retention tumor." Now Wendt supports this view, but goes farther, claiming that the cholesteatomata are the products of a peculiar form of inflammation, which he names the desquamative inflammation of the middle ear; that they consist of collections of an epithelium, secreted by the mucous membrane of the middle ear, but changed in

its form. In eleven cases, examined by Wendt during life, six were found to have their origin in the tympanum proper; in all the others, the tumors were present in the tympanum, but their direct origin could not be determined. The conclusions from his investigations, Wendt gives as follows:—

1. In the external meatus, tympanum and the cavities connected with it, collections of a peculiar cerumen-like substance are sometimes found.

2. Such collections originate, generally, in a desquamative inflammation of the mucous membrane of the middle ear, the epithelial covering of which, during the existence or after the cessation of a chronic inflammation, takes the character of the outer skin, by forming a *rete Malpighii*. From this *rete Malpighii*, cells, exactly resembling epidermal scales, are formed and thrown off; these cells collect in layers, and when shut off from the air undergo partial fatty degeneration.

3. The collections, when loose and dry, cause deafness of a moderate degree, provided there are no serious changes in the conducting apparatus of the ear; but extreme deafness when packed in tightly, or when swollen from moisture. They can also cause pain from the absorption of the moisture from a secretion in the ear, or from the entrance of fluid from without as after syringing.

4. They may be the cause of serious changes in the tympanum, the petrous bone, or even the brain, through the pressure which they exert on the neighboring parts from their increase in growth or from the absorption of liquid.

5. Their removal, although painful, and requiring a long time, is absolutely necessary.

6. It is highly probable that similar masses may be formed from the walls of the meatus, as the result of a chronic inflammation of that part of the ear, and that, from the meatus, they may find their way into the tympanum, through a defect of the membrana tympani, and produce the symptoms already described.

7. The cholesteatomata of the petrous bone, which have been described in the literature as composed of masses of epidermal cells, must now be regarded as the products of a desquamative process in the middle or outer ear, so long as a thorough investigation has not proved them to be of a different origin.

In a review of Wendt's article, von Tröltsch calls attention to the fact that gigantic, flat cells, closely resembling the epidermal cells of the outer skin, are found, normally, in the antrum mastoideum, and, also, that in some cholesteatomata examined by him a nucleus of dried pus was found in the centre of the mass, so that Wendt's description would not apply to all cases. He also repeats a suggestion made in his work on diseases of the ear, that it is probable that several diseases have been described under the one name of cholesteatoma of the petrous bone.

Embolus in the Mucous Membrane of the Tympanum.—Wendt (*Archiv der Heilkunde*, vol. xiv.) also gives the result of an examination in a case of embolus. A young woman, who died from metastatic abscesses in the lungs and liver, after an operation on the scapula, five days before death, suddenly lost the hearing of the right ear, and three days after, that of the left ear, also. The dissection showed, in addition to some old, the following recent, pathological changes: great swelling,

loosening and fragility of the mucous membrane around the foramina leading to the labyrinth on both sides, and on the left side, discoloration from blood, and numerous blood corpuscles in the tissue. The two stapes were immovably fixed in this swollen membrane. The investigations of Prussak and Brunner have shown that the mucous membrane of the tympanum is supplied by terminal arteries, the same as the liver, kidneys, retina, brain and lungs; those of Cohnheim, that the closure of a terminal artery may produce the very changes found here in the parts supplied by it. "In this case, the region of the embolus was, in the left ear, the upper anterior and the whole posterior part of the median wall and roof of the tympanum; it was sharply defined, discolored bluish black, swollen, œdematous, filled with blood-corpuscles, degenerated, and with a changed epithelium. In the right ear, the posterior half of the labyrinth wall was involved in similar changes."

Although the embolus itself could not be found in this case, the well-marked pathological changes, the suddenness of the attack and the freedom from preceding inflammation, which might have caused similar swelling, would seem to render the diagnosis certain.

Reports of Medical Societies.

NORFOLK DISTRICT MEDICAL SOCIETY.

[Reported for the JOURNAL.]

THE quarterly stated meeting of the Society was held at the Willard House, Hyde Park, on Wednesday, Nov. 11th, 1874, the President, Dr. EDES, of Roxbury, in the chair.

Dr. CLEMENT, of Roxbury, one of the appointed readers, introduced the regular discussion for the day by reading a paper on Drainage and Sewerage, in which he spoke of the use of sewers and of the present method of sewerage; he alluded to the discharge of sewage in improper places, and to the escape of sewer gases, with the means used to prevent such escape. He referred to the use and value of sewage matter, but did not consider that it was valuable enough, in this country, to pay for its removal and utilization; he therefore favored its discharge into large streams or into tide water.

Dr. DOWNES, of Quincy, read a paper, in which he insisted upon the importance of the subject, not only to physicians and sanitarians, but to the people at large. The writer thought that the question should not be left to private individuals, but should be taken in hand by the authorities.

The question most difficult to answer was, how to carry off sewage without contaminating the open streams, and how otherwise to render it harmless. He favored covered drains, as open streams become low at some seasons, and then are a nuisance. He spoke of the methods of utilizing sewage and of earth closets, but favored vaults and the air-tight apparatus for removing their contents.

Dr. AMORY, of Brookline, spoke of ventilating sewers, and described a case in which the ventilator did not prove a success, the gas still giving annoyance. He knew of no good way of ventilating sewers, except by long pipes running up to the tops of the houses.

Dr. Maynard, of Dedham, related a case of an establishment which had been built to accommodate six or eight people, with drains and other arrangements to suit that number; it was now made to accommodate sixty or more, with the result of producing an epidemic of fever, the inhabitants of the lower floor suffering much more than those on the upper. He thought it a striking instance of the result of bad sewerage. The drainage of houses is too often the last thing thought of by builders. Physicians ought to attend to this matter, in houses which they visit. He thought it as important to see to the drainage of a house as to prescribe medicine. Traps at the outlets of cisterns are seldom met with, and traps in sink-spouts are not as common as they should be.

Dr. H. P. Bowditch, of West Roxbury, said that the subject should be entrusted to those who, as commissioners, have supervision of large tracts of territory, so that some general principle of drainage might be followed. The combined action of large communities is necessary, so that sewage may not be shifted from one spot to another, but be carried to deep water on some general and comprehensive plan of drainage. He thought sewers were seldom large enough to carry off everything that was discharged into them. The sewers are built without reference to the possible amount of water to be passed through them.

Dr. Dearing, of Braintree, cited his own town as an example, and thought it like most other towns. The houses were generally built on elevated grounds, but the soil was wet, having a clay bottom and no drainage, so that it was damp for half the year. Butchers' shops abounded; four such were near his own house, and about these shops offal was left exposed without even being covered, so that hogs and the sun had free access to it. Cities have some drainage and are relieved in a measure, but the country towns suffer, since they have no system. Pig-pens, open and filthy and too near to houses, are an acknowledged cause of sickness, as are open drains and the receptacles of sink-water. Several such places were described, and the statement was made that typhoid fever, consumption and dysentery were common in them.

He thought the Society ought to do something as an organization of medical men; the selectmen of towns would not and could not do anything in their own towns. The matter should be under the care of the State Board of Health, whose power should be increased; and he advised an appeal to the legislature for such augmented authority.

Dr. Goss, of Roxbury, read an extract from the *Lancet* in reference to keeping separate surface water and sewage, and thought it had a bearing in the present discussion.

On motion of Dr. Amory, it was—

Resolved, That this Society recommend to its members to use their influence at the annual town meeting of the town in which they reside, for the election, as allowed by statute, of boards of health, separate and distinct from the boards of selectmen.

On motion of Dr. Dearing, it was voted that the President of the Society, with four members, be a committee to consider the matter of drainage and sewerage in Norfolk County, and report at the next meeting a plan by which it can be controlled by the State Board of Health, or on which the Society can present the matter to the next legislature.

A committee was appointed accordingly.

Dr. GIFFORD, of Stoughton, presented some fresh vaccine virus, and remarked that the humanized virus was better and safer than that direct from the animal, as he had seen two deaths recently from re-vaccination with animal virus.

Dr. TOWER, of Weymouth, asked Dr. Gifford if there was any limit to the amount of lymph one should take from a vesicle, or if all that would flow was good.

Dr. Gifford said he knew of no difference between the first and last that flowed. He had taken three hundred points from one vesicle, and it was all active.

Dr. Goss, of Roxbury, read an interesting paper on cases of cancer, in which nervous symptoms were very prominent.

Bibliographical Notices.

Note sur un Moyen, simple, facile, prompt et certain de distinguer la Mort vraie de la Mort apparente de l'Homme.

Note on a simple, easy, prompt and certain Method of distinguishing real from apparent Death in Man. By Dr. ANGE MONTEVERDI. Crémone. 1874. Pp. 20. With six Plates.

A CERTAIN sign of death has long been desired by the scientific, and perhaps even more by the ignorant, world. Every now and then we read in some paper a supposed case of premature burial, resting chiefly on the fact that the body is not found in the position in which the friends thought it should be. It would not probably be too much to say that ninety-nine of one hundred cases rest on no sufficient foundation. At Munich, every person, rich or poor, high or low, is obliged to lie a certain time after death (we think three days) in a public mortuary, and the string of a bell is fastened to the hand of the body. This custom has been in vogue for several centuries, during which the bell has been rung but a very few times, and we are not sure that in any case the ringing was caused by the revival of a supposed corpse. This shows how little premature burial is to be apprehended; but a single case of it in a century is a calamity that no efforts should be spared to avert. It is to be remembered that it occasionally happens that *post-mortem* changes are singularly slow to develop, that the precise moment of death is usually very difficult to establish, and that, therefore, any researches that may throw light on this question are of great practical importance. The large prize offered in Paris for a certain sign of death, shows the great weight that is there attached to the question.

Dr. Monteverdi's method of distinguishing real from apparent death consists in noting the appearances following an injection of ammonia under the skin. There are certain points in the author's physiology which we think are open to question; the vital principle plays a rather too prominent part. We are not going, *ex cathedrâ*, to deny absolutely the existence of such a principle, but we hold that if it exists it acts in accordance with natural and chemical laws, and not in opposition to them. According to the author, ammonia subcutaneously injected during health is followed immediately by a bright red spot, which rapidly extends, but reaches its limits in a short time, certainly in half an hour. If the injection be made when the patient is moribund, or in that mysterious state in which some spark of life may possibly exist, though its usual phenomena have ceased, the spot is smaller than in the previous case, but it develops about as rapidly; its color, however, is darker—that of red wine. If the injection be made after death, the spot appears and spreads much more slowly, and, what is most important, presents no red color; there is merely a dirty stain on the skin. The nearer death, the less marked the red color. This, like some other tests of death, rests on the theory that the capillary circulation continues, to some extent, after the

cessation of the heart's contractions, and that when it ceases death is surely there.

Dr. Monteverdi's experiments are numerous and carefully done, but the question occurs, has he ever been able to make a crucial examination? Granted, that if the bright red spot appears the man is not dead, can we be sure from its non-appearance that he is? Are there not rare cases in which the skin appears to die first? Though giving much credit to the author for what he has done, we fear the test is only negative after all. Before it can be absolutely accepted, it must be applied thousands of times, and a single failure deprives it of its value, for it is only for exceptional cases that a test is wanted.

We should like to see this test applied to the body of a man just withdrawn from the water, when the question of the possibility of resuscitation is about to be solved. If nothing is done, no change is seen till mortification sets in, and yet, often, judicious efforts may restore life. Would the test in such a case be of value? It remains to be proved.

Transactions of the Indiana State Medical Society. Twenty-fourth Annual Session. 1874.

THE President's Address had for its subject Alcohol and its Uses. The writer seeks to draw a line between the use and abuse of stimulants in medical practice. He defends the profession from the oft-repeated charge of intemperate temperance fanatics, that physicians prescribe alcohol "without science, common sense or conscience," and that "the man who prescribes it in any form is a quack." Passing by certain crude and erratic physiological notions expressed by the author—as, for example, the statement that "alcohol corrugates animal tissue"—we find much to approve in the sensible views expressed concerning the real utility of alcoholic stimulants.

We note, in passing, that the Indiana doctors, in convention assembled, believe in free speech and mutual improvement, for immediately after the President's address is the report of a discussion among the auditors, wherein the orator was subjected to much good-natured, but out-spoken, criticism.

A prominent feature of the Transactions is a Report on the Medical History of Indiana. We get here some entertaining sketches of the hardships endured by the early practitioners of the State.

The Stethoscope as a Means of Diagnosis in Fractures is the title of a paper by Dr. Laughlin. He illustrates, by a case, the observation that crepitus, which is imperceptible to the unaided hearing and touch, is made very clear with the assistance of the stethoscope.

Dr. Washburn urges the importance of legislation in behalf of the profession; the legalizing of dissections, the restriction of fœticide and of the sale of poison, the regulation of charlatanry and the reform of the coroner's office being specified as in pressing need of legislative attention in Indiana.

Dr. Elder describes a disease which he christens *Morbo Lacteo* (ablative absolute?), but which is better known, in the Mississippi valley at least, as the "milk-sickness," or "trembles." The disease is said to be caused by drinking the milk, or eating the flesh, of cows which have eaten some unknown poisonous shrub which is said to be present only in the grass of wild lands. The animals themselves suffer from symptoms analogous to those which their milk develops in human beings, and the disease sometimes proves very destructive to life. The chief clinical features in the human subject are intractable nausea and vomiting, great prostration, obstinate constipation and a peculiar fœtid odor having the "combined qualities of chloric ether and pty alism." The treatment consists in the use of cathartics and stimulants; "once restore the peristaltic action of the intestines and the patient is on safe ground." The disease is never seen where the pasture-land has once been cultivated.

Dr. Boyd reports cases of puerperal eclampsia treated with veratrum viride.

Dr. Thompson contributes a long paper on Intra-ocular Diseases. The paper is embellished with colored plates of ophthalmoscopic appearances taken from cases reported.

Dr. Bell, in a paper of considerable merit, avows himself a believer in the theory that epilepsy and uterine diseases sustain an intimate relation to each other. The pertinent criticism followed the reading of the paper that it was remarkable how few epileptics there were among so many cases of uterine disease.

All the contributions to these Transactions are marked by earnestness and vigor. We cannot refrain from remarking that it is a pity that a work otherwise creditable should be marred by very numerous typographical errors.

Infant Diet. By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York. Revised, enlarged and adapted to popular use by MARY PUTNAM JACOBI, M.D.

IN this little book of only 119 pages is contained a very large amount of information concerning the anatomy, physiology and chemistry of digestion during infantile life, with "directions for the mother in regard to the means of averting morbid alterations in the chemical changes that take place in the infant economy during the processes of nutrition."

The whole story, so to speak, has been very carefully written, and is told in a most interesting way, with the avoidance, as much as possible, of technical language.

We do not think that the statements herein contained have been all "restricted within the limits of what is already positively assured to science," as is proposed in the Preface. At any rate, much will be found here that is new to those readers who do not devote themselves specially to this branch of science. This is particularly noticeable in the description of the varied functions of the inorganic salts; and in the great importance attached to their proper supply in the food. As illustration, we are told of the phosphates, that a deficiency of the phosphate of potassa "impoverishes the blood," and that by this deficiency, also, "the muscles become weak." By the oxydation and heat following the contraction of muscles, "acids are formed in the substance of the muscles," that gradually accumulate as cinders do in a grate, and with a similar result, namely, the arrest of heat, "the activity of the muscle stopping also, as inevitably as does the work of a piston from which the supply of steam has been cut off. Moreover, an albuminous substance is coagulated in the muscles, making them stiff and painful. It is the phosphate of soda contained in the blood that neutralizes the acid and dissolves the coagulum, and thus restores the muscles to their freshness and vigor and enables more heat to be generated. Deficiency of phosphate of soda, therefore, interferes with the action of the muscles and thereby checks their development." "The phosphate of soda is one of the principal agents to maintain the alkalinity of the intestinal contents and to neutralize the various acids which are liable to form during the process of digestion. Insufficiency of this salt, therefore, will first favor acidity of the bowels and ultimately interfere with the formation of tissues, and especially with the growth of bone."

As causes of rickets are given:—1st. Deficiency of phosphates in the food to supply the place of those consumed in the organism. 2d. Excessive formation of acids in the digestive tube, which, being absorbed into the blood, dissolve out the phosphates already fixed in the body, especially in the bones, and carry them off in the urine. In this way, farinaceous food, when substituted altogether, or in part, for cow's milk, is often a cause of rickets; being liable to produce acid fermentation, it would also come under the second class of causes. Cow's milk, as it contains more than double the amount of phosphates proper to human milk, when injurious, could never be so from deficiency of phosphates, but would then come under the second class of causes. Meat, prematurely introduced into the diet of young children, by remaining undigested and giving rise to acids, would also come under the

second class of causes. The milk of anæmic or ill-fed women, which is also deficient in phosphates, may induce rickets as surely as artificial food.

Such an explanation of the cause of rickets as the one above given, we had supposed to be now generally abandoned. Certain it is that experience has fully demonstrated the futility of treatment by the administration of phosphates in the food or as medicine. The osseous tissues so affected are, to be sure, deficient in phosphates, not from a deficient supply, but because these will not take them up, in however great amount they may be offered; and to attribute to a deficient supply of phosphates the cause of the disease shows, at least, a want of appreciation of the whole process.

Is it not more rational, too, with regard to all the inorganic salts, to regard a deficient *supply* as a very rare factor in disease? The proportional amount required in food is so minute as rarely to receive particular care or attention in its preparation, and in disturbances of the organism, when they are found deficient, is it not more likely that other causes lie behind, producing, as one result, deficient appropriation by the economy, which deficiency may be accurately detected in the laboratory, but the importance of which in the causation of disease is overestimated, or at least not corroborated by experience at the bed-side?

We find, scattered through the book, a large number of practical suggestions, both for the mother and child, in the main excellent, as we should expect from one so qualified by ripe judgment and experience to speak *ex cathedrâ*.

For the purpose of diluting the milk, when necessary, the author recommends a thin and transparent solution of gum arabic; when, later, a substance is required that will act as a nutrient at the same time, he employs mostly decoctions of oat-meat or barley, as possessing all the necessary elements of nutrition (albumen and inorganic salts), without so much starch as to render it dangerous when well prepared. In place of "prepared" barley, he recommends every mother to grind it in a common coffee-grinder of her own, as thus no mistake or deception can take place. The author does not encourage the use of Liebig's food, or "patented articles of food," though admitting that "there may be some which deserve attention and credit." "I might name some," he says, "which now and then have proved beneficial in my own hands; and also some which, when I had the analysis made of two different bottles of the same box sent as specimens, yielded greatly varying results. Amongst the axioms we ought not to lose sight of is, that unvarying truth is in nature only; and that trade or money has no soul nor conscience."

In speaking of Liebeg's food, he writes:—"The recommendation is a good one. But the object of this paper is to show in what manner substances known to, and in the grasp of, every part of our population, can be employed as a perfectly harmless, reliable, nutritious article of diet. Such substances must have several qualities. They must be perfectly simple and recognizable. They must be found for sale everywhere. Their preparation must be perfectly simple and easy. . . . . .

"It looks as if the results of this food must be uniformly good, and since the disappointments in regard to its effects have been as many as its recommendations have been eulogistic, I have employed it myself with varying results. I believe that the attention required in preparing the food is the source of failures in most cases. Common sense is not at all a prerogative of every mother and nurse; and it appears that the requirements laid down in Liebig's plan demand too great a complication of cerebral functions on the part of cooks. The attempts at shortening this cooking process, by preparing for the market similar articles requiring less attention and time, are to be ranked amongst the patent merchandize of which I spoke before. It was one of these 'prepared Liebig's food' on which I made the experiments which I mentioned."

"The addition of chloride of sodium to the food is the more important the more the milk is mixed with a vegetable decoction." The chemico-physiological explanation of G. Bunge *(Zeitschrift f. Biologie)* is given as the most

satisfactory, namely: that "the craving for salt grows in proportion to the amount of potassa salts contained in the food." "The phosphate of potassa exists in the blood corpuscles alone, the chloride of potassium in both corpuscles and serum, and the chloride of sodium in the serum alone. If there should be in the blood more phosphate of potassa than can be taken up by the corpuscles, it will be immediately decomposed by the chloride of sodium in the serum; chloride of potassium and phosphate of soda are formed, and these are both eliminated by the kidneys and pass away in the urine. By this means, chloride of sodium is carried away, and must be replaced; in other words, vegetable food requires the addition of a great deal of salt. The substitution of cow's milk for woman's milk necessitates the addition of salt, for a similar reason; for while 1,000 parts of human milk contain only 0·70 chloride of potassium, 1,000 parts of cow's milk contain 1·30." "Owing to the relatively small amount of free alkali in cow's milk, it is recommended to add an alkaline salt (the carbonate or bicarbonate of potassa or soda) to cow's milk, and best at once, when the milk is put aside for the infant's use."

The device of parents to procure the milk of one special cow the author believes to be a mistake, as when the child has become accustomed to one cow's milk it will be more likely to suffer from the abrupt transition to that of another cow, a transition, nevertheless, often inevitable. He always advises the plan of giving the average milk of a farm, and has never been sorry for the results, Condensed milk is recommended, "the addition of loaf sugar" that is used in its manufacture "being rather an advantage than otherwise." We are surprised at this statement, for we have always considered that the large excess of sugar contained in the above preparation was very objectionable, and although robust, healthy children may often thrive upon it, this is certainly not the case with delicate or scrofulous children brought up with it. No mention is made of the condensed milk now obtainable in our large cities, manufactured without sugar and delivered fresh daily. When kept in a cold place, this keeps well for several days, and is in every respect a much superior article to that manufactured with sugar.

In answer to how babies are to be fed, "the only physiological method" he insists upon "consists in employing the nursing-bottle. Neither spoon nor cup prevents food of too hard a consistence from entering a baby's stomach. The fine preparation of an infant's food is equivalent to an adult's careful mastication. The greatest mistake on the part of mothers and nurses is that thick food is more nutritious; the truth is, that the nutritive power of food grows, *cæteris paribus*, with its dilution."

In conclusion, the author gives the following rules for the feeding of infants in general:—

I. About Nursing Babies.

Overfeeding does more harm than anything else. Nurse a baby of a month or two every two or three hours.

Nurse a baby of six months, or over, five times in twenty-four hours, and no more.

When a baby gets thirsty in the meantime, give it a drink of water or barley-water. No sugar. In hot weather—but in the hottest days only—mix a few drops of whiskey with either water or food, the whiskey not to exceed a teaspoonful in twenty-four hours.

II. About Feeding Babies.

Boil a teaspoonful of powdered barley (grind it in a coffee-grinder) and a gill of water, with a little salt, for fifteen minutes, strain it, and mix it with half as much boiled milk and a lump of white sugar. Give it lukewarm, through a nursing-bottle.

Keep bottle and mouth-piece in a bowl of water when not in use.

Babies of five or six months: half barley-water and half boiled milk, with salt and white sugar.

Other babies, more milk in proportion.

When babies are very costive, use oatmeal instead of barley. Cook and strain.

When your breast-milk is half enough, change off between breast-milk and food.

In hot summer weather, try the food with a small strip of blue litmus paper. If the blue paper turns red, either make a fresh mess or add a small pinch of baking soda to the food.

Infants of six months may have beef-tea or beef-soup once a day, by itself, or mixed with other food.

Babies of ten or twelve months may have a crust of bread, and a piece of rare beef to suck.

III. About Summer Complaint.

It comes from over-feeding and hot and foul air; never from teething. Keep doors and windows open. Wash your children with cold water at least twice a day, and oftener in the very hot season.

When babies vomit and purge, give nothing to eat or drink for four or six hours, but all the fresh air you can. After that time, you give a few drops of whiskey in a teaspoonful of ice-water, every ten minutes, but not more, until the doctor comes.

When there is vomiting and purging, give no milk.

Give no laudanum, no paregoric, no soothing syrups, no teas.

Typographical errors are few. The attention of the author should be called to a chemical mistake made in the instructions given for the detection of lime when present in adulterated milk (p. 91). The small quantity of lime-water recommended (℥i. to a pint), when added to milk, is probably a mistake of the printer. If we may be allowed to make one exception to the otherwise excellent arrangement of this little book, we would suggest that in the next edition an index of the contents be added.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the New Hampshire Medical Society. 1874. Concord. Pp. 129.

Twenty-third Annual Report of the Boston Provident Association. October, 1874. Boston. Pp. 24.

The Medical Use of Alcohol and Stimulants for Women. By James Edmunds, M.D. New York National Temperance Society and Publication House. 1874. Pp. 96.

Outlines of the Science and Practice of Medicine. By Wm. Aitken, M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 593. (For sale by James Campbell & Co., Boston.)

The Drift of Medical Philosophy. An Essay. By D. A. Gordon, M.D. Philadelphia: J. B. Lippincott & Co. 1875. Pp. 70. (For sale by James Campbell & Co.)

The Legal Relations of Emotional Insanity, By E. Lloyd Howard, M.D., of Baltimore. From the Transactions of the American Medical Association. 1874. Pp. 12.

State Street: A Satire. By author of Hard Knocks, &c. Published by A. W. Lovering. Boston. 1874. Pp. 29.

Sponge retained in a Stump after Operation.—*Le Mouvement Médical* mentions the case of a man who entered a hospital in Paris with a large granulating ulcer on the stump of his leg, consequent on amputation four months previously, in the reign of the Commune. On examination, a sponge was found imbedded in the granulations. It had been applied as a hæmostatic in the amputation and carelessly left in.—*The Doctor.*

Boston Medical and Surgical Journal.

Boston: Thursday, November 26, 1874.

The editor of our esteemed contemporary, the *American Medical Weekly*, draws a comparison between English and American Medical Journals, by no means flattering to the latter. He dwells on the influence the English papers have in such public affairs as come properly within their province, and extols the fearlessness and independence by which it has been gained. So far, we agree with him entirely, and we are not inclined to differ from him very widely in his remarks concerning the American journals. We submit, however, that he hardly does justice to some of them, and if we put ourselves among these, we put the *Richmond and Louisville Journal* among them also. After praising the strictly medical departments in our journals, this critic complains that, as journals, they wield no power, and that every kind of abuse is passed by without censure. "American medical journals, by silence, evasion, disreputable display of irresponsibility, by facile eulogy and indiscriminate praise, do nothing to reward the right and punish the wrong."

It is undoubtedly true that our medical journals have comparatively little influence, and it is true, also, that the fault is chiefly their own. Their power has so long been dormant that it is disregarded; but we believe that if sufficiently exerted it would soon be recognized. We accept our share in the reproof that we have not done as much as we could; but we submit that we have done a good deal. We have had many charges laid to our door, but that of "facile eulogy" is entirely new; it at least presents us in a very different and, perhaps, more amiable light than do the letters we from time to time receive from the writers of rejected communications, and from the authors of many works coming to us for review. The supporters of the American Medical Association have never made any allusion to the "indiscriminate praise" we have lavished on that institution.

We lately claimed that some of the credit of the late rebuke to prohibition in this State is due to our efforts; but, be that as it may, we have never hesitated in our course, though aware of its unpopularity in many quarters. The following note to the publishers, from a town in Connecticut, gives a fair idea of the way our efforts were frequently received:—

"Dec. 31, 1873.

Messrs. D. Clapp & Son,—Enclosed, find dues for the 'Journal,' and you will please stop it.

I prefer to read articles in the interest of the free rum interest in some other than my medical journal. Respectfully,

_____"

We took a leading part in the movement that suppressed, in Boston, a so-called "Museum of Anatomy," which had long been an eye-sore to the respectable portion of the community.

We hope to be pardoned the seeming egotism of saying so much of our own doings; we do so merely to show that, in the will at least, there is one journal that takes a higher stand than would be imagined from the article in question. We are, further, happy to believe that there are several others which, if they have not done their whole duty, have spoken out plainly and boldly against abuses. We have no desire to deny that the influence of our medical journals is far less than it should be, and we sympathize fully with the dissatisfaction that the *American Medical Weekly* expresses. We believe, however, that the remedy is in the hands of the medical press, and that by persistently demanding a hearing it can obtain one.

It cannot be denied that certain American Medical Journals are as low and bad as they well can be. It is most mortifying to feel that they may, perhaps, be taken, by those unfamiliar with this country, as specimens of its style. Such exhibitions as we sometimes see are so lamentable and humiliating that, in order not to weep, we must laugh at them. Listen, then, to the senior editor of the *Nashville Journal of Medicine and Surgery*, the President of the American Medical Association:—

"Whenever we corner a home contemporary, in a certain latitude, there is sure to come a wail from over the water, as though medicos on both sides were connected by a naval string instead of telegraph cable only. We have occasionally copied these lamentations for the amusement of our readers, under the head of 'Henglish 'Onesty.' One has just come over, with the *British Medical Journal*, with which we do not exchange, and its managers can only see ours when it is sent to them for a purpose. Managers of English journals are, for the most part, myths; no one knows who they are, no one cares who they are. A publishing house gives a medical corner to an advertising sheet, and dubs it a 'Medical Journal,' picking up some poor fellow lying around loose, with a medical education—only this and nothing more—to run the concern, allowing him enough broken victuals to

——— 'pit his painch in,'

as will prevent soul and body from singing out to each other that good old phrase 'good-bye!' No one knows him.* Possibly a descendant of the axe-man employed in ancient times to prevent a redundant population of the island, and, like his distinguished ancestor, he is only

* It is hardly necessary to mention that the *British Medical Journal* is the organ of the British Medical Association, and not under the control of any publishing house. The name and standing of the editor are perfectly well known to all conversant with medical journalism.—EDITORS BOSTON MED. AND SURG. JOURNAL.

abroad when masked. We never send our Journal to such snobs, and we repeat, that they can only get it when it is sent to them by others, and it is never sent without a special purpose. This purpose is, that one on this side of the water may get what, in his imbecility, he believes, a blow from the other side that will finish us. Poor fool, he forgets, or never knew, that a man, to be done for and wiped out, must do that little job for himself, which one is not very apt to do, who, with a few friends, organized a medical school, walked into it, and during the first decade, taught more than three thousand pupils—an achievement without precedent in the annals of Medicine—and of his own accord retired from active service, carrying with him the confidence of the host he had in part taught, and the warm friendship of every colleague. . . . . .

"Of course, we regard these blows as the highest compliment the medical Lilliputians who give them can bestow; and the more pompously vindictive the trans-Atlantic cold-victual man is, the more acceptable the compliment. The craven cry of 'help me, Cassius,' on this side of the water, is music to our ear, only surpassed in liquid sweetness by the responsive bellow of the insular little John Bull. . .

"Like the maggot-fly, he deposits his ovum, and is off, leaving its product to the chance of circumstances, while punishment seeks him in vain at his chop-house, armed with the fossil remains of yesterday's chicken, flanked with a mug of ale and a cold potato. He laughs, as he reads what an outraged fellow-subject or distant editor has printed in reply, and quotes Mrs. Webster's instructions, to first catch a rabbit before you roast it. Like his prototype, Bob Sawyer, he expresses his ecstacy by grimace, laughter and gesticulation. His yeasty ale seems champagne of the rarest vintage, and his subsoil edible is no longer rooty in flavor, but sweeter than the honey from the thyme of Ida."

It was long before the irritation which followed the publication of Martin Chuzzlewit subsided in America, but now that we look back at the matter, we are able better to discriminate between the true and the false than was to be expected at the time. Mr. Dickens's fault was not in drawing the offensive characters he did, but in implying that they were fair specimens of Americans, and that there was no better class worthy of notice. After reading the above extracts, who shall assert that Elijah Pogram and Hannibal Chollop were caricatures? Thank Heaven, they are not our representatives.

THE LATE JEFFRIES WYMAN.—At the October meeting of the Middlesex South District Medical Society, the following was adopted:—

That, while we can add nothing to the emphatic language in which numerous associations have testified to the incalculable loss which the recent death of Dr. Jeffries Wyman has inflicted upon the whole circle of natural sciences, we, the physicians of this district, cannot forget that we have lost an associate whose frequent communications to this society were of the highest practical value; that, though early leaving the practice of our profession, he never lost his interest in it; that during his life he was making constant additions to those sciences which underlie intelligent medical practice.

That in the future we shall miss not only the vast resources of his trained intellect, but the man deserving of love, an example in all respects worthy

of imitation, and a character which was an inspiration to all who came within the circle of his influence.

THROMBOSIS CAUSED BY A NEEDLE.—At a recent meeting of the Clinical Society of London, Dr. H. Thompson reported the case of a young woman of hysterical temperament, who was admitted into Middlesex Hospital with febrile symptoms of two days' duration. She had pain in the back, languor and loss of appetite. There were also pain and tenderness in the right iliac region and across the hypogastrium; and, indeed, the whole surface of the trunk appeared to be unnaturally sensitive. There was a systolic murmur at the apex, and the heart's action was tumultuous, but there was no history of rheumatic fever. The day after admission, she became wildly delirious, with a pulse of 160 and a temperature of 105° F., followed in the course of two hours by profuse sweating. On the following day, she had a rigor, with a temperature of 107·4° F., again followed by profuse sweating and a fall in the thermometer. This rigor was followed by others, so that, during the fifty-three days she remained under observation, there were rigors on nineteen, mere chilliness on four; both, as a rule, being followed by sweating. Vomiting or faintness either occurred with the paroxysm of shivering, or played the part of its representative. Whatever the mode of manifestation, the temperature at the time of the outbreak almost always culminated in a peak—on six days, at 105° F. or more; on twenty-six, at 104° F. or more. Twelve days after admission, phlegmasia dolens, with conspicuous enlargement of the superficial veins, appeared in the left lower extremity, and, forty-two days afterwards, in the right, and there remained until the death of the patient. About the time of the first appearance of the phlegmasia, she presented symptoms closely resembling symptoms of pericarditis; and, throughout the case, she complained of aching pain in various regions of the spine. Finally, after a protracted period of delirium, accompanied by profuse diarrhœa, she sank exhausted, and died on the fifty-third day after admission.

At the *post-mortem* examination, there were found to be numerous extravasations beneath the lining membrane of the third ventricle of the brain, but this organ was not otherwise diseased. In the chest, there were subpleural ecchymoses over both lungs, and the organs were œdematous. There were one or two old white patches on the surface of the heart. The mitral valve was thickened, and presented a chain of small vegetations along its auricular margins. In the abdomen, the inferior vena cava, from its commencement to the junction of the renal veins, was filled with a partially decolorized clot, adherent to the wall of the vessel, and channelled through its centre. At its commencement, just above the junction of the iliacs, the vessel was filled with dirty-brown matter; and in the midst of this a needle was noticed resting in an oblique direction, with its eye pointing downwards and slightly to the left, in close relation to an opening in the back of the vein, about an eighth of an inch in diameter. Immediately above this, another opening existed, measuring a quarter of an inch in diameter. Through these apertures, the body of the fourth vertebra could be felt, denuded of its periosteum. The left common iliac vein was filled with a brownish-red clot of moderately firm consistence and slightly adherent. The left external iliac and left femoral veins were as small as crow-quills, and were completely occluded by a whitish fibrous plug, which could not be detached from the wall of the vessel. The right common iliac, right external iliac and right femoral veins were obstructed and narrowed by a tough, fibrous-looking layer, firmly attached to the lining membrane. Immediately to the left of the third lumbar vertebra was an abscess, in which a second needle was found, lying obliquely across the body of the vertebra, the surface of which, however, was not eroded. The liver was engorged with blood. The spleen contained several infarctions, one about the size of a marble, softened in its centre. The intestines were much injected; the mucous membrane was the seat of extensive catarrh. The kidneys were normal.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

REPORT OF OPERATIONS.

Service of Drs. Bigelow and Cabot. Saturday, November 14, 1874.

1. Hare-lip.
2. Deformity of Face.
3. Tumor of Nates ("Weaver's Bottom").
4. Painful Stump after Amputation of Thigh; Re-amputation.
5. Painful and Ulcerating Stump after Amputation of Foot; Re-amputation.
6. Cancer of Lip.
7. Extrophy of Bladder; Second Operation.
8. Necrosis of Frontal Bone; Eye destroyed; Enucleation.
9. Necrosis of Tibia.
10. Necrosis of Femur.
11. Amputation of Finger for Felon.
12. Caries of Os Calcis.
13. Abscess of Hand.
14. Abscess of Face.
15. Talipes Equinus.
16. Amputation of Contracted Finger.

The first hare-lip operation was performed upon a woman who had lost the lip and nose, as well as the soft palate, by scrofulous lupus, seventeen years before. As preliminary to making a nose from the forehead, Dr. Bigelow drew the upper lip together and united it, after dissection, upon the median line.

In the second case, that of a young man who had been operated upon in early infancy for double hare-lip, with an imperfect result, a more considerable operation was required. While a notch remained in the margin of the thin and scanty lip, the septum, which had failed to unite with the lip, projected from the tip of the nose. The latter was aquiline, and unusually prominent. Dr. Bigelow divided the lip upon the median line and pared the edges, removing the notch. The cheeks, with the alæ nasi, were then dissected freely from the bone, while the fleshy septum and the extremity of the nose, were raised from the cartilaginous septum for more than an inch. The edge of the latter was then pared and shortened, so as to reduce the prominence of the nose and allow the short, fleshy septum to be inserted in the interstice of the lip. The whole has now (six days later) united by first intention, and the profile is much improved.

The tumor of nates ("weaver's bottom") was of six years' duration, in a man seventy-two years old. This was a tumor of the size of a large cocoanut, depending from the lower part of the right nates. The patient had been making hoops, sitting astride of a bench and leaning on the right buttock, thus creating a friction which doubtless caused the tumor. The growth was movable, fluctuating, with a firm, thick wall, its outline uniformly rounded with a neck, and nowhere lobulated. Dr. Bigelow remarked upon the probable development of this tumor from a bursa near the tuberosity, and stated subsequently, at his clinical lecture, that the affection was mentioned in Bryant's Surgery, under the name of "weaver's bottom," as being not uncommon among the Spitalfields weavers. The tumor was punctured with a trocar, and nearly two quarts of fluid drawn off, of a reddish-brown color, slimy, highly albuminous, and containing abundant cholesterine (seventy-one grains by subsequent filtration). Some straw-colored coagula, which also escaped, proved to be structureless albumen. The sac was then dissected out, adherent chiefly at the tuberosity, and averaging a quarter of an inch in thickness. The wound was left open, the flaps falling into place, Dr. Bigelow remarking that, by the imprisonment of pus, more harm than good usually

resulted from any attempt to adjust accurately, with stitches, the fatty integuments of the back, after the removal of tumors.

H. H. A. BEACH, M.D., *Surgeon to Out-patients.*

BOSTON CITY HOSPITAL.

Service of Drs. Fifield and Gay.

LAST Friday, Nov. 13th, Dr. Fifield amputated the arm of a female patient aged 19 years, who had been in the Hospital since September 10th, suffering the severe effects of an extensive burn. Six days before her entrance, her clothes caught fire, and, before the fire was extinguished, her right forearm was deeply burned from the fingers to the elbow. There were also less severe burns on the arm above the elbow and on the back. The tissues of the forearm were so deeply involved that sloughing was extensive, and several of the fingers became gangrenous. In course of time, all the fingers were lost, either by sloughing or by amputation. The ulcerated surfaces were variously treated, bnt the healing process was stationary. Oxide of zinc ointment, oxide of zinc in powder, skin-grafting and other remedies proved satisfactory in only a slight degree, and amputation was at length resorted to.

The interesting features of the operation were, the use of Esmarch's method for the control of hæmorrhage and the torsion of all the arteries in the stump. Both procedures gave entirely satisfactory results. The section was in the middle third of the arm. There was not the slightest subsequent accident or complication, and the healing of the stump proceeded without interruption.

Dr. Gay recently had a case of amputation in which the wound made by the injury was utilized in making the flaps. The patient was a young girl who fell from the front platform of a horse-car; the wheel passed over the right arm, making a compound and comminuted fracture of the humerus in the middle third of the left shaft. The skin over the biceps was severed longitudinally, exposing the muscle. The periosteum was stripped from the humerus over a space two inches long.

In performing amputation, Dr. Gay used the opening in the skin to bound the flaps of the stump, instead of going entirely above the wound and making a much shorter stump. The method was not followed by any untoward result. There was no sloughing of the flaps, and the patient left the hospital, after twenty-four days, perfectly well.

Two cases of Thyroid Dislocation of the Hip-joint have recently occurred in Dr. Gay's service. Both were successfully reduced by Dr. Bigelow's method of manipulation. The first case was that of a laboring man aged 25, who was injured while at work in the hold of a vessel. A bale of hemp fell from a distance above him, striking him in the back and spreading his legs wide apart when he fell. After etherization, the thigh was found to be strongly abducted and flexed on the pelvis to an angle of 35°. Extension was impossible. There was a very distinct depression over the great trochanter, with a corresponding prominence at the upper and inner side of the thigh. With the finger in the rectum, the head of the femur could be felt at the upper part of the thyroid foramen. The injured limb appeared relatively lengthened, there being a difference of an inch and a half in the distance from the anterior superior spine of the ilium to the top of the great trochanter, when compared with the sound side.

The femur was strongly flexed, abducted and rotated inward. In the course of this manipulation, the head of the bone could be felt slipping up and down on the brim of the acetabulum. On the third repetition of the operation, the bone was felt to slip into place, and all deformity was relieved. The patient was discharged, well, after thirteen days.

In the second case, the injury was produced by a fall of fifteen feet upon the deck of a schooner. The symptoms of dislocation were similar to those in the case just described. The same method of reduction was adopted, success attending the first attempt.

Medical Miscellany.

SCARLATINA is very prevalent throughout Great Britain and Ireland.

TRACHEOTOMY IN SPASMODIC CROUP is indicated in exceptional cases only.

PROF. BURT G. WILDER will give the course on Physiology at the next term of the Medical School of Maine.

IT has recently been computed that there is a birth in London every five minutes, and a death every eight minutes.

DYSPNŒA IN LARYNGEAL CATARRH is rarely observable in adults.—*Niemeyer's Lehrbuch.*

THE British Medical Association will meet in Edinburgh next year. Preparations have been begun, and "lively and pleasant expectations" of the visit are already indulged in.

RHANUS FRANGULA is described by Mr. Joseph Ince, in the *Chemist and Druggist* (June 15, 1874), as a non-drastic, safe, pleasant and efficient purgative.

LOSS OF HUMAN LIFE BY CHOLERA.—The total number of deaths from *cholera Asiatica* during its panepidemics over the earth, which have occurred twice between the years 1816–1860, has been estimated at forty millions.—*Zeimssen's Handbuch.*

RAPIDITY OF THE SPREAD OF CHOLERA.—Cholera has never been known to advance over a given territory at a more rapid rate than the ordinary vehicles employed in facilitating intercourse between that district and some other locality already infected.—*Zeimssen's Handbuch.*

THE REGISTRATION OF DISEASES.—The Legislature of New Zealand has passed a law requiring every medical man to give information to the health authorities of the existence and place of all cases of zymotic disease which come under his observation.

THE ORIGIN OF TRANSFUSION.—According to reliable records, transfusion was first practised, in 1492, upon the person of Pope Innocent VIII. The operator was a Jewish physician. The experiment was tried three times. The result of the treatment was that the blood-donors, three in number, died, as well as the decrepit pontiff himself.

INJECTIONS OF COD-LIVER OIL FOR ASCARIDES.—The *Journal des Connaissances Médicales* publishes a communication from Dr. Szerleki, of Mulhouse, on a case of irritation of the anus and adjoining parts, which was very greatly relieved by injecting an ounce of cod-liver oil into the rectum. —*The Obstetrical Journal.*

THE PREVENTION OF ZYMOTIC DISEASES.—Dr. Lyon Playfair, in his address as President of the Health Section of the British Social Science Association, says: "The isolation of patients afflicted with smallpox, scarlatina and measles will one day become part of hygienic law, though at present it would not be supported by public opinion.

PROF. ESMARCH recently attended a meeting of the Clinical Society of London, and gave a very interesting account of his method of controlling hæmorrhage, together with some reports of cases in which he had seen gratifying success attend its uses. Out of three hundred cases, in which the method has been employed by him, no evil result has followed in any one. His cases had done better, he said, than those treated antiseptically, and with the ordinary means of controlling hæmorrhage.

ANTE-NATAL DEVELOPMENT OF NINE TEETH.—At a recent meeting of the Philadelphia Obstetrical Society, Dr. C. H. Thomas related the case of an infant which, though normally constituted otherwise, exhibited nine perfect teeth when born. In addition to these, a number of small, whitish nodules could be seen and felt along the line of the gums, above and below, lying underneath the mucous membrane, and evidently marking the location of all the other deciduous teeth.—*The American Journal of Obstetrics.*

COLLODION IN CERVICAL ADENITIS.—Dr. Tournié strongly recommends the application of flexible collodion when the superficial cervical glands are enlarged and threaten to suppurate and the skin over them is inflamed. The inflamed region is painted over with a double layer, and an additional layer is added during each of the next three or four days. The application is useless in deep-seated adenitis, or when the glandular swelling assumes a chronic form, without heat and redness of the skin. The object is to prevent the formation of abscess, but when this has actually formed, the application is useless.—*L'Union Médicale.*

FEMALE CATHETER AND THERMOMETER CASE COMBINED.—Dr. Jas. R. Chadwick describes a simple and ingenious procedure for transforming the metal case of the clinical thermometer into a female catheter. This idea is carried into effect by having two eyelets punched in the lower end of the case, and an opening made in the rounded end of the cap, just small enough to prevent the thermometer escaping. It is, of course, essential that the cap should either screw on to the case, or at least fit tightly, inasmuch as without the cap the instrument has hardly sufficient length.—*The Obstetrical Journal*, October, 1874.

NOTES AND QUERIES.

LE(A)D ASTRAY!—Such, says a non-professional reader of the article, should be the title of that remarkable case of impregnation by a rifle ball, in No. 19 of *The American Medical Weekly.*

THE LYNN CITY HOSPITAL will be a reality before many days. . . . . At the last meeting, the Association passed the following liberal resolution:—"As this institution is intended to meet the wants of the entire community, there shall be no discrimination in favor of any school of medicine."

This was in a morning paper a day or two since. Will some of our Lynn brethren let us know what the "liberal resolution" means. ??

DIED,—In Salem, Nov. 18th, Dr. E. B. Peirson, aged 57.—In South Boston, Nov. 20th, Dr. Paschal P. Ingalls, aged 38.

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending November* 14, 1874.

Boston, 143; Worcester, 17; Lowell, 23; Milford, 1; Chelsea, 4; Cambridge, 24; Salem, 6; Lawrence, 11; Springfield, 7; Lynn, 2; Gloucester, 3; Taunton, 6; Newburyport, 5; Somerville, 10; Fall River, 19; Holyoke, 6. Total, 287.

Prevalent Diseases.—Consumption, 52; pneumonia, 32; scarlet fever, 18; typhoid fever, 13; croup, 10; diphtheria, 5.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 21, 145. Males, 79; females, 66. Accident, 3; abscess, 1; apoplexy, 4; inflammation of the bowels, 2; bronchitis, 6; congestion of the brain, 1; disease of the brain, 3; cancer, 4; cholera infantum, 1; cerebro-spinal meningitis, 2; consumption, 27; convulsions, 3; croup, 4; debility, 2; diarrhœa, 4; dropsy of the brain, 3; diphtheria, 3; dysentery, 1; erysipelas, 1; scarlet fever, 4; typhoid fever, 3; disease of the hip, 1; disease of the heart, 3; hæmorrhage, 1; intemperance, 2; disease of the kidneys, 3; disease of the liver, 2; laryngismus stridulus, 1; congestion of the lungs, 1; inflammation of the lungs, 14; marasmus, 7; measles, 3; old age, 5; paralysis, 3; pleurisy, 2; premature birth, 2; peritonitis, 4; puerperal disease, 2; syphilis, 1; tetanus, 2; teething, 1; varicella, 1; unknown, 2.

Under 5 years of age, 53; between 5 and 20 years, 12; between 20 and 40 years, 33; between 40 and 60 years, 24; over 60 years, 23. Born in the United States, 107; Ireland 26; other places, 12.

THE

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Original Communications.

A CASE OF OBSCURE ABDOMINAL DISEASE.*

By ALFRED HOSMER, M.D. (Harv.), of Watertown.

JUNE 5, 1874.—From Mrs. F., I obtain the following facts: She was born in Boston, Dec. 1846. In 1855, her parents moved to Missouri, where she was soon seized with intermittent fever, which persisted, without interruption, for three months, and afterwards recurred several times until 1860, when she was taken to Iowa, where she experienced no farther trouble. In 1861, she came back to Boston, and remained four years, occasionally feeling an indistinct expression of malarial influence; but, with this exception, considered strong and well. In 1865, she again changed her residence, this time to Brighton. In 1867, she spent nine months in the city of New York, and soon after her return, commenced work in a box factory, and remained there until January, 1872, when she abandoned her occupation for reasons now to be given. The changes which resulted in broken down health began insidiously and advanced by imperceptible degrees. But at the date last mentioned, rather suddenly, she found herself unable to work longer, and presented the following symptoms: Cough, which lasted for two months, marked anæmia, nausea, extreme weakness, some emaciation; severe pain, extending from the nucha along the whole length of the spine; dyspnœa, palpitation, pain in the cardiac region. The spinal pain was of brief duration; but at the end of twenty days, she suffered intensely for a week, from a pain in the right leg, which was located in the lower part of the calf, and on the anterior surface, in the region of the ankle. Œdema, extending up to the knee, soon appeared, and has never since left the limb. For a considerable time afterwards, the condition of the leg produced a visible lameness.

In the course of a few weeks, the intensity of the symptoms, which had forced the patient to acknowledge herself an invalid, abated; but no changes took place which promised recovery, and her health remained broken and imperfect. Menstruation first appeared at the age of fourteen, and went on regularly until January, 1872. From that time, the function was tolerably well performed for a few months; but in the following August amenorrhœa commenced and lasted for a whole year. In August, 1873, the menses reäppeared once, and were seen no more until April, 1874, when they assumed a natural character, and returned every four weeks. In the autumn of 1873, abdominal enlargement was first noticed. During the following winter, the bladder was

* Reported to the Obstetrical Society of Boston, Oct. 10, 1874.

irritable to a troublesome degree, and exercise was sure to provoke incontinence of urine. In the spring of 1874, œdematous swelling first affected the left leg. The family history throws no light upon the case. Marriage took place July, 1873, and without any apparent detriment, and, certainly, with no advantage to her condition. There is no reason to suppose that conception has ever occurred.

Now, Mrs. F. is in her twenty-eighth year, and is rather a small woman. The countenance is somewhat pale, but, otherwise, the expression is not bad. The functions of the alimentary canal are well performed; the appetite is good, the food occasions no trouble, and the bowels are regular. Nights are comfortable, with sufficient sleep; no pain is felt at any point. The skin is universally harsh and dry; the hair inclined to fall. The strength is seriously impaired, and the flesh considerably less than natural. The patient is dressed every day. The chest furnishes no physical signs. Exercise oppresses the breathing. The pulse is frequent and feeble. The lower extremities are œdematous in their entire length, the right one being much larger than the left. The capillary circulation in both limbs is extremely sluggish, and they show a color closely approaching to purple. Menstruation regular and natural. Leucorrhœa always slight. The bladder gives no trouble, and the urine contains nothing of importance. The thermometer gives only a very slight elevation of temperature. The abdomen, measuring thirty-two inches in circumference at the navel, is unnaturally full, and exhibits an unmistakable prominence in the left lower half. To the touch, it is no where hard and firm, but offers more resistance in the left iliac region. The results of percussion, together with the presence of fluctuation, prove the existence of some kind of a fluid, held in a cyst, which seems to have thin and not very tense walls, and to contain a quantity amounting to three pints, more or less. This collection of fluid extends obliquely from a point well over to the right of the median line in the hypogastrium to the left lumbar region above the crest of the ilium, and fills the space from Poupart's ligament almost to the umbilicus. By the vagina, the cervix is found pointing slightly forward and to the right, having less than the ordinary mobility, and giving the idea that it is held in a somewhat unnatural position by something acting upon the fundus, as by adhesion or pressure. The finger discovers no tenderness, and gets no intimation of any abdominal growth. The uterine cavity takes the sound two and one-half inches plus. The rectum does not prove to be an avenue to knowledge. In answering the question of diagnosis, I could only say that it seemed to me more likely to be a case of ovarian dropsy than anything else.

The details of the treatment prescribed are unimportant; suffice it to say that the patient commenced and continued to improve in many respects until the second half of July, when she began to have attacks which were entirely new. After a premonitory yawning and gaping, there came severe pain in the abdomen, not limited to any part of that cavity, accompanied by great general distress and faintness. About this time, she was forced to take her bed, and to have recourse to morphine. Nausea and vomiting soon appeared in the case, at first occasional, and later persisting day after day.

The first of August found the patient looking very ill, and becoming worse quite rapidly.

August 3d, I thrust the needle of the aspirator into the sac, from a point a little above and to the outside of the middle of Poupart's ligament. I succeeded in obtaining five ounces of a yellowish, transparent serum, containing a large proportion of albumen. This operation was without obvious result. Six days later, August 9th, the attacks of abdominal pain having become more frequent and more severe, the nausea and vomiting more constant and more exhausting, I again used the aspirator, puncturing first at the same point as before, and with precisely the same result. The needle was then introduced a little farther to the right, and about five ounces more of apparently the same fluid was drawn out. The only immediate result of this operation was a visible diminution in the size of the abdomen in the left iliac region. But, in the course of the second week after this, the tumor was found to have undergone some very striking changes. Before setting forth those, I wish to describe two little episodes, which will make this August memorable in the mind of the patient. Early in the month, the bowels had become somewhat slow, and laxatives were resorted to, and, as was supposed, with complete results. But on the 16th, complaint of discomfort in the lower portion of the rectum was so loud that I was induced to explore, and found the bowel packed full of fæcal material. The process of getting rid of this accumulation, which proved to be enormous in quantity, was long and tedious, and added to the already great exhaustion. About the same time, pain and tenderness had established themselves in the left arm, extending from shoulder to elbow, which region was also swollen and œdematous. The left external jugular vein was hard, cordy and tender as far as could be felt, and the symptoms in the brachial region were referred to a phlebitis.

To return to the abdominal disease: Instead of that which could be nothing but a sac of fluid, with a smooth, even, ovoidal exterior, I found a solid mass, which felt precisely like a liver, turned bottom upwards and pushed down into the brim of the pelvis. Its anterior surface was smooth; its superior edge was well defined and regular in its outline; the portion lying to the left had a larger vertical dimension than that lying to the right, and, what renders the comparison more complete, was the division of these two portions, one from the other, by a notch or shallow fissure, which could be distinctly felt. This solid mass, almost insensible, occupied just about the same position and the same space as its predecessor, the cyst.

The patient entered the month of September with prospects improved. The nausea and vomiting had ceased; the stomach could receive and retain food; the bowels were more natural in action. Abdominal pains no longer required the constant use of anodynes. The nights were better. The swelling of the legs was very much less. The jugular vein had become soft; the trouble in the left arm had almost disappeared, and, finally, the abdominal mass had undergone an unquestionable diminution of size. The history of the case for September is that of a qualified convalescence. Apart from the progressive, favorable changes in the local disease, the most striking features were an increasing emaciation, a steady loss of strength, and the daily evacuation of incredible quantities of fæcal material.

One word as to the menstruation. In July, it was all right. In August, there was simply an intimation of a menstrual discharge,

which lasted but a few hours. In September, nothing whatever has occurred.

The first week in October finds the patient as follows: Digestive system in good order. Strength increased, and flesh thought to be, though she is still very thin. Able to be dressed and to go about the house somewhat. Sleeping well. Legs absolutely free from swelling. Pulse slower and firmer. Countenance brighter. Abdomen naturally flat, 26 inches in circumference. The left iliac region is resonant under percussion. Upon palpation, I feel an ill-defined something, but it is so indistinct that I think a fresh observer would hardly attach any significance to it.

Knowing that the diagnosis of growths within the abdomen encounters difficulties which are presented by no other class of diseases, I venture upon no opinions. I am happy to know that the aspirator verified the assertion of fluid in the first stage of the case. And if there is any meaning in the evidence which comes to a physician's fingers through the abdominal walls of a female, there existed, in the second stage, a solid mass, which, considering the circumstances under which it originated, the peculiar shape which it assumed, the early date at which its course became a retrograde one, the steadiness and rapidity with which it followed that course, is one of the most striking pathological curiosities I have ever known.

What is it?

Translation.

HYSTERICAL HEMIANÆSTHESIA.

Translated and condensed from Leçons sur les Maladies du Système Nerveux. Par J. M. Charcot.

By S. G. Webber, M.D., of Boston.

Gentlemen,—I wish to dwell particularly upon two subjects in this and the following lecture—hysterical hemianæsthesia and ovarian hyperæsthesia. I bring these two symptoms together because, generally, they are associated in the same patients.

In order to keep within bounds, I will consider only complete hemianæsthesia, as it is seen in severe cases. Even with such a severity, it is a frequent symptom, since M. Briquet found it 93 times in 400. The same author found it 70 times on the left, and 20 times on the right.

You know how it is in such cases. The two halves of the body being supposed separated by an antero-posterior plane, all one side—face, neck, trunk, &c.—has lost its sensibility, and, though very often only the superficial parts (external covering) is affected, sometimes the deeper portions (muscles, bone, joints) are also invaded.

Hysterical hemianæsthesia is complete or incomplete. Analgesia, with or without insensibility to heat and cold, thermoanæsthesia, is one of the most common varieties. The clearness with which the anæsthetic parts are separated from the healthy is an important character in the hysterical hemianæsthesia. On the head, face, neck, trunk, the demarcation is perfect, and corresponds almost exactly with the median line. Deserving of mention, also, is the paleness and rela-

tive coolness of the anæsthetic side. The ischæmia may be shown by the difficulty there is in severe cases of drawing blood by a pin prick from the anæsthetic parts.

I noticed this formerly when, having applied leeches to a patient attacked with hysterical hemianæsthesia, I noticed that the bites scarcely bled on the anæsthetic side, while on the healthy side the blood flowed as usual. This ischæmia may explain certain facts considered miraculous, as in the epidemic of Saint Medard, sword thrusts did not draw blood on those attacked with convulsions. It is only necessary to suppose that these were subject to hysterical anæsthesia, and that the sword was not thrust in too deeply.

The mucous membranes are attacked on one side of the body, like the external covering. The organs of sense themselves are affected to a certain degree on the anæsthetic side. Taste may have disappeared on the corresponding half of the tongue, from the tip even to the base. The sense of smell is blunted; sight is notably weakened, and, if the left side is affected, it may offer a very remarkable phenomena, which M. Galezowski has called achromatopsia. We will return to this again.

The hysterical hemianæsthesia does not seem to affect the viscera. Thus the ovary may be hyperæsthetic, very painful on pressure, even when the corresponding abdominal wall is absolutely insensible. The ovarian hyperæsthesia and the hemianæsthesia occur on the same side, and if the former is double, the latter is usually generalized, and, consequently, affects nearly the whole body. When paresis or contraction supervene, it is always on the side of the hemianæsthesia.

The hemianæsthesia is so much the more important as it is very nearly a permanent symptom, varying only in degree, and in the intensity of its phenomena.

It is important not to forget that it is a symptom which must be *sought*. Many patients show great surprise when its existence is revealed to them.

As to how far hemianæsthesia, as above described, is peculiarly a symptom of hysteria, it is very seldom that it can be found with the full combination of its characteristics, caused by any other disease. If it then is well-marked, it is a valuable indication, and it will often reveal the nature of a large number of symptoms, which, otherwise, would remain doubtful. This is not absolutely true; it is especially not correct to say that "hemianæsthesia, arising from encephalic lesions, always differs from hysterical hemianæsthesia in that in the former the skin of the face does not participate in the insensibility," or that, "when it exists it is never on the same side as that of the limbs." This is an error which has been reproduced in these very words, in the interesting thesis of M. Lebreton.

In cases which are, indeed, exceptional, but, yet, perfectly authentic, certain limited cerebral lesions may give rise to hemianæsthesia, with all the characteristics recognized in hysteria, or very nearly so.

The classical doctrine, at least, with us, is that cerebral lesions, occurring in foci which seriously affect the motor power, are almost without influence on the sensibility, especially when situated in the optic thalamus and corpus striatum.

When the lesion occurs suddenly, causing an apoplectic attack, the most marked symptom is a hemiplegia, more complete in the upper

limbs, and accompanied with relaxation. In the face, the buccinator and orbicularis oris are generally affected; the tongue is also protruded towards the paralyzed side. The vaso-motor nerves are also paralyzed, as is shown by an elevation of temperature in the paralyzed limbs.

The sensibility is not appreciably changed, or, at least, not permanently. There is no change in the special senses, unless there is some complication, as embolism of the central artery of the retina. Such is the combination of symptoms found in the vast majority of cases of hæmorrhage or softening, affecting the parts of the encephalon referred to. But by the side of the rule, is a list of exceptions. There are cases, and I have seen several, where the sensibility is chiefly affected, and the anæsthesia persists, even after restoration of motion.

These alterations of sensibility may have the following characteristics: The anæsthesia affects all of one-half of the body, being arrested exactly at the median line. The corresponding half of the face, both skin and mucous membrane, is insensible, exactly as in hysterical hemianæsthesia. It is possible, then, to observe analgesia and thermo-anæsthesia with preservation of tactile sensibility. Finally, there are, also, rare cases where, probably, the special senses were affected on the same side with the hemianæsthesia.

Almost always, when the hemianæsthesia has these peculiarities, the lesion is either entirely, or nearly so, limited to the optic thalamus. Is it necessary to conclude from this that lesion of the optic thalamus is the veritable organic cause of the hemianæsthesia in all these cases?

[Then follows a brief statement of the principal arguments for and against this proposition. He concludes:—]

I believe, from the preceding, that in the cerebral hemispheres there is a region, the lesion of which causes hemianæsthesia; the limits of that region are known approximately, but the localization cannot be more clearly defined, and no one can say whether it is the parts of the optic thalamus, or of the internal capsule, or of the centrum ovale, or of the third nucleus of the corpus striatum, included in that region.

A case is referred to, in which there was trembling, resembling paralysis agitans, on the same side with the hemianæsthesia, where the special senses were affected, there being amblyopia, loss of smell and of taste on that side. He concludes, therefore, that it is very probable that complete hemianæsthesia with disturbance of the special senses, just as it is seen in hysteria, may arise, in certain cases, by a localized lesion of the cerebral hemispheres.

Pint of Paraffine Oil Swallowed by a Woman.—Dr. G. R. Gilruth reports a case in which a middle-aged, delicate woman, feeling herself becoming suddenly faint, seized an ordinary quart bottle, thinking it contained porter, and drank the whole of its contents, namely, a pint of paraffine oil. Her mistake being at once discovered, an emetic was given, causing copious vomiting. When seen, shortly after, by Dr. Gilruth, she complained of a burning sensation in the region of the throat and stomach; the surface of the body was cold, but the pulse was good, and the fauces, with the exception of being slightly reddened, had a natural appearance.

The treatment consisted in giving about three drachms of the bicarbonate of soda dissolved in a small basinful of warm water; ordering a hot poultice to be applied over the abdomen; and, later, two drachms of wine of ipecac, but without causing more vomiting. The natural warmth speedily returned to the body, the unpleasant symptoms disappeared, and in the course of a few days the woman was moving about in her ordinary state of health.—*Edinburgh Medical Journal*, Nov., 1874.

Progress in Medicine.

REPORT ON DERMATOLOGY.

By James C. White, M.D.

Reaction of the Skin under slight Mechanical Irritation. (Vierteljahresschrift für Dermat. und Syph., from Centralblatt.)—Petrowsky calls attention to the white streaks which are produced upon the skin by drawing the finger-nail or any pointed instrument lightly over its surface. If a figure is traced in this way, no change is at first apparent, but in one fourth to one half a minute the irritated part begins to grow gradually pale; the paleness quickly reaching its maximum, remaining thus for a little time, and then very gradually disappearing. The figure thus traced is plainly visible, but varies in intensity, and lasts, according to the amount of irritation employed and to individuality, from four to six minutes before it wholly disappears. It can be called out at any time, as well when the skin is moist with perspiration as when dry, as well on parts generally exposed as on those usually covered. If a portion of skin is rubbed until red, and the irritation be then practised, the appearance is not evident until the general redness has faded; but if the figure be first traced and the part be rubbed when it begins to appear, it stands out in much bolder contrast upon the red groundwork. It is thus that the well-known "*spirit*" writing upon the arm or other parts is produced.

This phenomenon, according to Petrowsky, is probably produced by a contraction of the arteries of the skin, although it is not impossible that other histological elements of the skin may be concerned in it. In cases where the appearance is not easily developed, the cutaneous vessels must either be paralyzed or their irritability be much diminished.

Skin Grafting. (Vierteljahr. für Dermat. und Syph., 1 Jahrg., 1 Heft.)—Studensky concludes, from the results of fifty transplantings of skin upon ulcers, that the scars thus formed, however numerous the grafts, are as little capable of resistance as those which result from healing in the ordinary way from the periphery. He sees, therefore, no practical advantage in Reverdin's method.

Cutaneous Eruptions symptomatic of Rheumatism and Gout. (Annales de Dermatologie et de Syphiligraphie, Tome 5, No. 6.)—Professor Profeta, of Palermo, comes to the support of Bazin in his views concerning arthritism. He, too, believes in the existence of a peculiar set of cutaneous lesions which are produced by and are diagnostic of the rheumatic diathesis, which are thus described by him:—

1. The arthritides are seated sometimes upon parts of the body which are exposed, sometimes upon those which are rich in sweat glands and hair follicles, sometimes upon the skin which covers the joints. They are always circumscribed, and if by chance they spread, they never become general.

2. They never appear all at once, but are always developed by successive outbreaks.

3. They are asymmetrical, inasmuch as they never affect two corresponding regions, and, when occurring upon both sides of the body, their abundance and distribution are not the same.

4. The eruption appears in groups, which do not extend, and which never occupy any considerable surfaces.

5. The affected skin is generally of the color of red wine or a raspberry, and small hæmorrhagic spots are often seen in the midst of the eruptions.

6. The efflorescences are polymorphic.

7. They are essentially dry, exhibiting no tendency to suppurate nor to serous exudation.

8. The sensation connected with them is not decidedly pruriginous; it is more prickling or burning.

9. The first outbreak lasts quite a long time; but as they are repeated they disappear more rapidly, and at last have only an ephemeral duration.

10. The arthritides almost always relapse.

Sebaceous Tumors of the Scalp.—Mr. Tyrrell, of the Mater Misericordiæ Hospital (*Dublin Journal*, July, 1874), lays down the following practical rules for the treatment of these growths:—

1. That those which occur at birth, or in early infancy, should be removed without delay, as experience proves that such tumors have a tendency to cause destruction of the bone and to perforate the skull.

2. That the ordinary sebaceous tumors of the hairy scalp do not cause absorption of the bone.

3. That when a sebaceous cyst ulcerates, a spontaneous cure is not to be expected.

4. That when a sebaceous cyst ulcerates, it should be entirely removed as soon as possible.

5. That the ordinary sebaceous tumors may remain harmless for an indefinite time, and do not necessarily grow larger from day to day.

6. That the surgeon should not operate on them unless the patient is in good health, and after a careful examination, particularly of the urinary organs.

7. That for removing such tumors, the knife is preferable to caustic.

8. That external applications and internal remedies are worse than useless.

Erysipelas.—Orth (*Untersuchungen über Erysipel, Archiv f. Experiment. Pathol. u. Pharmacol.*, 1873) drew from his experiments upon animals, injecting into their tissues various fluids containing bacteriæ, the following conclusions:—

That epidemic erysipelas is caused by the development of a poison which is contained in the blood and also in the fluids which surround the affected portions of skin.

Erysipelas may be inoculated, by means of the fluids, from man to animals, and from them to him.

The development of erysipelas is always accompanied by a corresponding development of bacteriæ.

The severity of the poisoning is always in direct relation to the quantity of bacteriæ inoculated. Bacteriæ artificially raised are capable of producing erysipelatous infection.

Bacteriæ constitute only the indirect cause of the disease; they are not found in greater quantity in the blood of infected persons; destroying the bacteriæ diminishes the action of the infecting fluid without wholly changing its virulence.

Bacteriæ belong probably to the group of fungi, class schyzomycetæ, tribe microspheræ.

It is supposed that bacteriæ vary in form and nature in the different affections in which they have been observed, but science has not been able to establish any marked difference between them.

To the deduction of any relationship between erysipelas in man and the form of cutaneous inflammation produced upon animals in these experiments, Lukomsky objects, on the grounds that the fluid injected was taken from erysipelatous bullæ already formed, and therefore already in process of change, and that the process excited by it was not true erysipelas, but conditions such as have been often produced by the injection of decomposed substances. By the discovery of micrococci in the lymph vessels and juice canals of the skin, in the neighborhood of a part affected by erysipelas, Lukomsky was led to make an extensive series of investigations (*Untersuchungen über Erysipelas, Virchow's Archiv*, Band 60, p. 418) upon the nature of the disease. These consisted, first, of the most searching examination, by the microscope, of the tissues and fluids of parts affected by erysipelas; second, of injections of fluids containing bacteriæ subcutaneously, and of their application to open wounds, the latter subjects being rabbits.

Nine cases in the first series were examined, several of which were fatal. The details are given at great length, from which it appears that where the erysipelatous process was fresh and still in progress, micrococci were to be found in great numbers in the lymph vessels and juice canals; but that where the process had come to a standstill, or was in retrogression, no micrococci were to be found, even when the inflammation was still intense. Their entrance into the capillaries, where they were occasionally seen, may be effected directly from the juice canals, he thinks, or, first being received by the wandering cells, may be introduced through them within the vessels.

From his experiments with rabbits, he draws the following conclusions:—They support the experience of other writers, that subcutaneous injections of fluids containing fungi produce a rapidly spreading and severe phlegmonous inflammation of the subcutaneous cellular tissue, shared to a considerable extent by the cutis. The micrococci increase largely in the tissue, and spread especially into the juice canals and lymph vessels. This inflammatory process can be excited by a fluid containing fungi which exhibits as yet no signs of decomposition, and also by a similar fluid from a living person, in which there can be no talk of decomposition, unless the presence of the fungus be regarded as an indication of decomposition. Fluids from a dead body, without the presence of micrococci and bacteriæ, of themselves produce only local inflammation, which has no disposition to spread. The contents of erysipelatous bullæ free from fungi, when injected subcutaneously, do not necessarily produce any morbid appearances.

Inasmuch as the phenomena excited by these experiments were unlike erysipelas in that the inflammation was largely confined to the subcutaneous tissue, while in the latter it is mainly seated in the cutis, Lukomsky, in another series, applied the matters directly to simple wounds of the skin. From the results of these, he was led to the following conclusions:—Substances in a state of decomposition containing fungi, when brought in contact with a wound, produce immediately a severe local inflammation, which quickly affects the surrounding skin; this wandering process cannot be distinguished by its symptoms from the so-called erysipelas in man. The micrococci and bacteriæ pene-

trate the tissues of the skin through the juice canals and lymph vessels and wander on through these channels. They are found in greatest quantity at the periphery of the inflammatory process, especially where it is making greatest progress.

Whether the micrococci pass from the surface of the wound to which they are applied into the canals of the skin in an entirely passive manner, by simple absorption, or are introduced by means of the wandering cells, or through the active movements of the bacteriæ, these observations do not determine; neither do they show in what way they again disappear; whether they are destroyed on the spot, or, by means of the wandering cells, are, perhaps, again carried off into the vessels.

Putting together all the data obtained by histological examinations of the erysipelatous skin in man, and from the experiments upon animals, Lukomsky believes that there is a connection between erysipelatous processes in the skin, and its penetration by low organisms, such as micrococci and bacteriæ, and that the progress of the disease depends upon the preceding development of micrococci.

Bromine Acne (Virteljahresschrift für Dermat. und Syph., 1 Jahrg., 1 Heft.).—Dr. Theodore Veiel, in Cannstadt, having had the opportunity of observing, in the asylum for epileptics, at Stetten, a great many patients who were taking large doses of bromide of potash, has communicated a very interesting report upon the action of this drug upon the skin. The amount required to produce the acne depends wholly upon individuality. In many cases, it appears quickly, with moderate doses, while in others it is wanting, even after the largest doses. It occurs alike in both sexes, and with all constitutions, as often in the robust and full-blooded, as in weak, anæmic and scrofulous persons. No opportunity was afforded of determining the age most liable to it, as only young persons were the subjects of observation. The condition of the skin seems to exercise a material influence upon the disposition to this acne, as it is especially apt to occur when the skin is thickened and greasy with sebum. Comedones and acne of prior existence increase in intensity; and the disappearance of acne vulgaris, after the use of the bromide, as stated by Fox and Cholmeley, was never observed. An acute outbreak, with febrile symptoms, was never noticed, the eruption always appearing very gradually, and exhibiting the most various stages of development simultaneously upon the same individual.

In respect to seat, it differs from ordinary acne, inasmuch as it affects not only the face, neck, shoulders and breast, but, also, as a rule, the scalp, the eyebrows, the hairy portions of the legs, and often the whole surface of the body. It especially prefers parts abundantly supplied with hair, but is never, like sycosis, exclusively limited to one hair district. Its localization, in fact, is identical with the acne produced by tar and iodine. In color, the efflorescence offers nothing characteristic, and its development, duration and retrogression are the same as in common acne. Not a trace of bromine could be detected in the pus collected, although it could be readily recognized in the urine at the time. (It is not stated that the sweat-glands did not contain bromine.) With the increase of the dose, the eruption increases in intensity, and diminishes as the dose is lessened. From acne vulgaris, it may be distinguished by its situation upon parts

abundantly supplied with hair by preference, so that a majority of the pustules appear to be perforated by a hair, and that it often occurs without any concomitant formation of comedones. Inasmuch as these latter peculiarities are common also to tar- and iodine-acne, it can only be distinguished from the latter by the entirely characteristic fœtor of the mouth, which affects all patients exhibiting bromine-acne, and by urinary analysis, as the other symptoms of bromism do not appear until after the acne.

Several other forms of cutaneous affections were observed in addition to acne in the Asylum. Erythema nodosum, exclusively of the lower extremities, continued, in some cases, as long as the bromide was given, but disappeared as soon as its administration ceased. It was never accompanied by fever.

A diffuse and very painful erythema, accompanied by fever, and likewise confined to the lower extremities, was more frequently noticed.

Another affection was observed upon the lower legs of two boys. Wheal-like elevations of considerable size appeared upon erythematous portions of skin, which were very sensitive, gradually assumed a wart-like appearance, and underwent ulceration. The ulcers thus formed had a bad look, were deep, and showed no inclination to recovery as long as the bromide was given, but healed at once as soon as this was omitted, and left a scar of a dirty, yellow color behind it.

In another case, a great number of warts appeared on many parts of the body, but in greatest numbers upon the face.

Elephantiasis Arabum Congenita.—Prof. Czerny (*Archiv für klinische Chirurgie*, Bd. 17, Heft 3) reports a very interesting case of this affection, in a woman, 25 years old, several of whose relations in preceding generations, including her mother, had been affected with similar growths. The tumor, at birth situated upon the shoulder, had reached the size of the fist at the age of six, and was removed when she was 20 years old. It grew again rapidly, and when seen by him was of great size, and hung down over the buttocks. An attempt to remove it by the ecraseur failed, on account of the great hæmorrhage, and death took place a few days afterwards. Dissection revealed, in addition to the characteristic structure of such growths, which Prof. Czerny regards as a hyperplasy of the subcutaneous tissue, enormous lymph sinuses, and multiple neuromata, which seem to him to have more than an accidental connection with the disease, and to warrant the title, elephantiasis neuromatosa, or neuroma elephantiasticum, which has been applied to similar growths by Bruns. The paper is accompanied by very elaborate plates of the appearances *in situ* and after dissection.

[To be continued.]

Ovarian Cyst in an Infant newly Born.—Dr. C. J. Cullingworth reports an instance of the above phenomenon, discovered in the body of a well-nourished infant, born at or near the full term. The cyst was unilocular, of globular form, of smooth exterior, and semi-transparent. It was connected with the left ovary and broad ligament by a somewhat flattened base, measuring six mm., passing thence through a somewhat narrower neck into the general body of the cyst. It was covered in its entirety by peritoneum, and bloodvessels were seen passing along its walls.—*The Obstetrical Journal*, October, 1874.

Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON.

[Reported for the JOURNAL.]

OCT. 10, 1874.—Dr. ABBOT, Senior Vice-President, in the chair.

Dr. STEDMAN read a paper on the relation of phthisis to pregnancy, closing with three cases which had been previously reported to the Society.

Dr. HOSMER read a case* in which the diagnosis was ovarian disease, with some complications of a doubtful character, and the result was recovery, or at least a fair convalescence.

Dr. CHADWICK asked concerning the character of the fluid drawn by tapping.

Dr. HOSMER replied that it was the same as in ascites, containing a large amount of albumen, without cholesterine. The urine at the time was loaded with urates; otherwise normal.

Dr. ABBOT suggested that a large fæcal accumulation, occasioned by the pressure of a cyst in the left side of the abdomen, might explain the enlargement which was found to persist after tapping.

Dr. CHADWICK said that the pain which was felt while the cyst was perceptible, might have been due to local peritonitis, on or about the cyst, the peritonitis causing an agglutination of the parts, and secondarily an obstruction of the rectum and accumulation of fæces; also, that the evacuation of a portion of the fluid does not make it impossible that a solid portion might then fall forward and become perceptible.

Dr. SINCLAIR remarked that a low form of peritonitis might cover the whole case. Thus, by the agglutination of parts, artificial serous cavities might be formed, in which the serum might lie for a long time unchanged, while the agglutinated parts would form masses of fleshy hardness. We might suppose these cavities to be partly relieved by tapping, convalescence to be established, and all the morbid phenomena gradually to disappear without leaving a trace.

Dr. ABBOT suggested that Dr. Hosmer's cathartics may have completed the evacuation of the tumor; and mentioned the case of a woman enormously distended by an encysted ovarian tumor, which came under his observation some years since, in whom there was apparently complete evacuation of the contents of the cyst after severe purgation for ten days, by an irregular practitioner.

Dr. LYMAN asked the chairman if he thought any ovarian cyst could be evacuated by catharsis.

Dr. ABBOT responded that, in the case mentioned, which was for a time at the Massachusetts General Hospital, Dr. J. B. S. Jackson, in whose ward she was, diagnosticated ovarian cyst; that the patient left the hospital to die; that, some time later, he saw her well, a firm mass remaining in the right iliac region, larger than the fist. She afterwards had two living children. The original tumor had distended the abdomen to its utmost capacity.

* The leading article in this number.

Dr. READ stated a case which he thought might be similar to that of Dr. Hosmer. It occurred some years ago; there were symptoms of ascites; tapping gave exit to a large quantity of fluid like melted fat, and was performed in two places, and the abdomen was washed out. It was afterwards found that several sacs had been formed by the gluing together of different portions of the intestines, evidently the result of peritonitis in the first place.

Dr. BUCKINGHAM referred to the phlebitis of the left upper extremity as indicating that it was not a case of ovarian disease simply, and inquired as to the nature of the congestion and swelling of the lower extremities. He considered it impossible, in our present knowledge, to make a diagnosis.

Dr. WELLINGTON inquired as to the relation between the fæcal discharges mentioned in the paper and the subsidence of the secondary tumor.

Dr. HOSMER replied, in answer to these and other questions, that the only previous disease was intermittent fever in early life. In the portion of the case reported, there was no history of chills, but a good deal of nausea in the latter part of July and first of August. He had used castor oil, senna, compound rhubarb pill, and podophyllin, but not drastically; nor had there been diarrhœa. He had felt no fæcal accumulation through the abdominal walls. Nothing was made out by the rectum or the vagina, even when the solid tumor could be felt above. In August, the rectum was loaded and the bowels were cleared out. About the middle of September, the patient was having large, soft, never scybalous, discharges, and at this time she was losing flesh. The three tappings yielded each about five ounces. The resulting hard tumor was distinctly lateral, extending well up into the lumbar region, and was about as large as the previous tumor. There had been pain in the left arm, and the external jugular was hard, cordy and tender. The right leg had been swollen three years; the swelling of the left began only last spring. But there was no phlebitis in the lower extremities.

Dysmenorrhœal Membrane.—Dr. READ showed an entire cast of the cavity of the uterus, thrown off during moderate dysmenorrhœa, to which the patient is subject. She is 30 years of age, married ten years. Her dysmenorrhœa is moderate, not confining her to the house nor making her an invalid. The specimen exhibited came away with no more than the ordinary trouble. There was steady backache, but no intermittent pains.

Manual Dilatation of the Os Uteri.—Dr. SINCLAIR reported a case of placenta prævia. The patient was 40 years old, and had had a child fourteen years before. The flowing began with the eighth month of pregnancy, and occurred in occasional copious gushes. For three weeks, the treatment was temporizing, with rest and quiet. In the fourth week, there was a consultation with two gentlemen, who advised plugging. This was done, and the vagina became thereby enormously distended. Dr. Sinclair removed the plug and found the cervix very firm, rigid, barely admitting the point of the finger. He determined to use manual dilatation, inserting one finger after another. The placenta was found rather more than half over the cervix. He passed the hand into the uterus, and delivered a living child; the placenta came immediately. Delivery was accomplished in twenty minutes from the beginning of manual dilatation. Dr. Sinclair considered the fingers, in

such a case, superior to Barnes's or Molesworth's dilators. No instrument, after the sixth month, can take the place of the hand, with which you know exactly where you are and what you are doing. In the present case, the cervix was long, and it might have been difficult to place and keep in place a dilating instrument. Dr. Sinclair described the manual method he employed, which consists in placing the index finger in the cervix and allowing it to remain; if there is no haste and not much force is used, the fibres gradually yield. The muscular tissue must be tired out, so as not to contract again. Then the finger may be partially withdrawn, the second pointed with it and both entered, and the patient process of dilatation repeated, and so on until the hand is introduced in the usual conical form. In a certain case, it had taken him four hours to introduce his hand. In answer to the objection, quoted by a member, which has been made to the pressure of the knuckle against the uterine substance, Dr. Sinclair stated that, in the five or six times he had done this thing, no damage had ever occurred, or seemed likely to occur, from such a cause. As to the effect of full etherization, he had known pretty strong contraction to take place under this condition.

Dr. Chadwick stated that in a recent case of hæmorrhage at the fifth month, from retained placenta, one month after abortion, he had tried Barnes's dilators, but could not keep them in place, but succeeded with Molesworth's cylindrical tubes, which he favored. These dilate cylindrically, in virtue of the longitudinal elements of which they are composed, and are marked to indicate to what extent they may be dilated with safety. Thoy are powerful, and sometimes burst if used without caution.

Dr. Buckingham remarked that the introduction and proper retention of the dilator, before and after the escape of the fœtus, were two very different things as to ease of accomplishment.

Dr. Arnold described a method of manual dilatation which he had successfully employed, namely, by crooking the introduced finger or fingers, and so gaining upon the inner surface of the uterus a point of leverage for advancement, and finally, by closing the hand forcibly, an act which, itself, has a dilating effect. In cases of retained placenta after abortion, he advocated the use of Loomis's placenta forceps, which he had used in several instances without damage.

A Case of Retained Placenta.—Dr. Tuck reported a case of retained placenta in the fifth month of the sixteenth pregnancy of a woman aged 42. She was stout and strong. She miscarried suddenly, under the care of another physician. The fœtus was six or seven inches in length. When called to see her, she was blanched, exsanguine; the placenta was presenting. With the placental forceps, he worked long and slowly, and extracted half a teacupful of fragments; then, afraid to go further, and the flowing being largely checked, he plugged the vagina with a sponge soaked in a solution of persulphate of iron and done up in a handkerchief. The next morning, the patient was comfortable. In the afternoon, the air-bag was substituted for the sponge plug, and in twenty-four hours more a placental mass larger than a horse-chestnut was found in the vagina. The case afterwards went on without accident.

Dr. Chadwick asked if the use of placental forceps were not groping in the dark. He had never used and never had faith in them.

Dr. Tuck stated that he had used the instrument with care, assuring himself, by the aid of the finger, that no uterine substance was grasped.

Cephalhæmatoma treated by the Aspirator.—Dr. Hosmer said he had tapped, with the aspirator, a large cephalhæmatoma of the left parietal, and with entire success. The tumor at once collapsed, and a few weeks afterwards the hard edge had entirely disappeared.

Chloral in Parturition.—Dr. Lyman asked for an expression of opinion upon the use of chloral hydrate in the first stage of labor. In one case of his, it had given great comfort. There were pains, not very severe, but tedious, during forty-eight hours. The patient took in all two drachms, fifteen grains at a time, and was allowed to take that dose whenever she wanted it, but at not less than an hour's interval. It deadened the pains, but had no relaxing effect upon the os.

Dr. Wellington asked if that were a safe direction for the patient.

Dr. Lyman thought it perfectly so. Of late, he had used the croton-chloral, which he thought a great deal better.

Mortality Statistics of Parturition.—Dr. Wellington referred to the mortality statistics of labor, to which his attention had been turned by the recent loss, eight days after delivery, of a patient who had suffered, during and after labor, from a valvular disease of the heart. She died from distress of breathing. He thought Duncan, in his work on obstetrics, underrates the mortality, namely, about one in one hundred within four weeks after labor. In the report of St. Bartholomew's, for four or five years, the proportion is 1 in 298. Of his own cases, Dr. Wellington had found a record of 634 and 10 deaths; of the latter, one was from valvular disease of the heart, three from puerperal pyæmia, two from disease of the brain (probably apoplexy), three from consumption, and one from puerperal mania. Excluding the three cases of phthisis and one of valvular disease of the heart, as not being properly puerperal, there were six, which is a proportion of 1 to 105. If we take only the deaths which occurred within six weeks after delivery (excluding the death from disease of the heart, which occurred eight days after labor) we should have 5 deaths, or 1 to 126.

Dr. Buckingham suggested that St. Bartholomew's patients probably leave at an early date.

Dr. Lyman remarked, some are also probably delivered in the neighborhood, and their histories not followed up, though reckoned as hospital cases.

Dr. Tuck said that at the Boston Lying-in Hospital the patients leave on the fourteenth day. No record is kept of their condition afterwards. If there is any reason why they should stay longer, they do stay. They are never out till they have first been up and about in the house. If a patient leaves prior to the prescribed time, she is obliged to sign a paper, stating that she does so contrary to the advice of her physician.

Dr. Wellington asked if it were proper that a woman should be up in less than two weeks. He never allowed patients to get up before two weeks if possible.

Dr. Lyman thought getting up early from labor favored arrest of involution.

Dr. Abbot did not think the mortality statistics of individual physicians should be discredited. He proposed that each member should report his own cases. He himself recalled but three deaths.

Bibliographical Notices.

Atlas of the Osseous Anatomy of the Human Ear. By N. Ruedinger, M.D., University Professor, Adjunct and Prosector in the Anatomical Institute of Munich. Translated and Edited, with Notes and an additional Plate, by Clarence J. Blake, M.D. Boston: A. Williams & Co.

This atlas, which is a reproduction, with an English text, of portions of the well-known work of Professor Rüdinger on the Human Ear, is intended "to provide the teacher and student with correct representations of the more important parts of the osseous anatomy of the human ear, accompanied by explanatory text and notes, available for instruction or for reference." The plates consist of photographs, all but one taken by Albert, of Munich, from the original negatives, which are recognized in Europe as most beautiful specimens of photographic art. They represent, respectively, the temporal bone, the ossicula auditûs separate, the ossicula in their natural position together, the osseous labyrinth from above, the osseous labyrinth from without, the osseous labyrinth from behind, the cochlear portion of the vestibule, and a section through the whole petrous bone, showing the relations of the parts of the ear. In addition to these eight plates from the original work, Dr. Blake has given a photographic representation of the inner wall of the tympanum and meatus. The text, consisting of anatomical explanations of the figures, has been carefully translated, and an admirable description of the cavity of the tympanum accompanies the American frontispiece. Several notes, by the American Editor, add considerably to the value of this edition; among these, might be mentioned excellent descriptions of the complex system of arteries and nerves supplying the ear, and of the special and articular ligaments of the ossicles. The atlas, as a whole, gives a much clearer and more satisfactory idea of the osseous anatomy of the ear and of the relations of the different parts to each other than any of the anatomical textbooks, and it is to be hoped that the success of this work will justify both publishers and editor in giving the remaining plates of the original Atlas des Menslichen Gehörorganes.

Outlines of the Science and Practice of Medicine. By Wm. Aitken, M.D., F.R.S. London: Charles Griffin & Co. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 593.

As this is little more than a digest of the author's larger work, we do not feel called upon so much to discuss the subject matter, to criticize the treatment, &c., as to consider whether the book is good for the purpose for which it was written. The author says, in the preface, that the book is expressly designed for students, and that it is meant to contain what is "solid, practical and essential for the student to learn on the science and practice of medicine at the outset of his career." An important feature is the instruction relating to case-taking, which is very valuable as conducive to method in examination. The section on pathology is rather sketchy, but sufficient for its purpose, if we suppose it to be taught more thoroughly with some other book. The chapters on physical examination, the methods of conducting it and conclusions to be drawn from it, are excellent. The author has hit the mean between an elaborate treatise and a superficial compendium very happily, and, in a word, we think the book very deserving.

The Physician's Visiting List for 1875. Philadelphia: Lindsay & Blakiston.

Messrs. A. Williams & Co. have sent us a specimen of these valuable pocket companions. Besides the pages devoted to notes on cases, there are others for memoranda, obstetric engagements, &c. &c. There is also a calender and a list of poisons and their antidotes which in certain cases might be of use.

Boston Medical and Surgical Journal.

Boston: Thursday, December 3, 1874.

It will be seen by the orders published below that the Medical Commission of Massachusetts is relieved from duty, and an Examining Board for candidates for medical positions in the militia established. The commission which is about to be dissolved has, of late, been but little before the public; but in its early career it rendered services, both to the State and to the profession, which should not be forgotten. At the beginning of the late war, Drs. James Jackson, George Hayward and S. D. Townsend (all of whom are now dead) were appointed a committee by the Society for Medical Improvement to represent to the Governor that great care was necessary in the selection of regimental surgeons. Shortly after his conversation with these gentlemen, Gov. Andrew appointed the body known as the Medical Commission to act as a board of consultation and a kind of general committee on army medical affairs. The Commission consisted of Drs. George Hayward,* S. D. Townsend,* John Ware,* S. G. Howe, J. Mason Warren,* Samuel Cabot, Jr., R. M. Hodges, George H. Lyman, and Wm. J. Dale, now Surgeon-General of Massachusetts. The following were subsequently added: Drs. George H. Gay, S. L. Abbot, John C. Dalton,* R. W. Hooper. After the war, Dr. A. P. Hooker,* in virtue of his office of Assistant Surgeon-General, became a member of the commission. This body labored zealously and efficiently at every kind of work coming within its province, and, by the authority of the Secretary of War, in addition to its other duties, discharged those of a board of examiners of medical candidates for army positions. The candidates were subjected to a rigid examination, and good evidence of respectable professional standing, as well as of moral character, was required. The Commission had its origin under exceptional circumstances, and did its duty nobly; but, with the return of peace, it became somewhat of an anomaly, and it is now eminently proper that it should be dissolved, but not without the thanks of the Commonwealth.

Drs. Joshua B. Treadwell, B. Joy Jeffries and Edward J. Forster are now appointed medical examiners, in accordance with an Act providing that candidates for the militia shall be examined by a board of militia surgeons. The matter is not without its importance, for, though, as we hope, it will be long ere the successful candidates have other professional occupation than to prescribe for diarrhœa during the summer encampment, since in case of war we must depend largely on

* Since deceased.

volunteers, it is essential that the medical department should be found available, and, to be so, it must be composed of competent and respectable men. We approve highly of the composition of the new board, and are sure that the interest and credit of the profession may safely be trusted to it.

COMMONWEALTH OF MASSACHUSETTS.

OFFICE OF SURGEON GENERAL, BOSTON, December 1, 1874.

Circular.

The Medical Commission of Massachusetts, a Board of Examining Surgeons, instituted by the late Governor Andrew, on the order of the Secretary of War, and continued by proper authority to date, for the examination of candidates for the Medical Staff of the Volunteer force of the Commonwealth during the war and since, is hereby relieved from further duty.

His Honor the Lieutenant-Governor and Commander-in-Chief gratefully recognizes the long, honorable and patriotic services of this Board, the more distinguished and to be held in remembrance as its services were voluntary and without pay.

By order of the Commander-in-Chief, WM. J. DALE,
Surgeon-General.

ADJUTANT GENERAL'S OFFICE, BOSTON, Dec. 1, 1874.

General Orders, No. 23.

The Medical Commission of Massachusetts having been relieved from farther duty, it is hereby ordered that, hereafter, all persons appointed as Surgeons, or Assistant Surgeons, in the Volunteer Militia, shall be examined by a Board of three Medical Officers, for the purposes indicated in Sect. 22, Chap. 320, Acts of 1874. The Board will meet as occasion may require for such examination, and render their report through the Office of the Surgeon-General.

The following-named officers are, upon recommendation of the Surgeon-General, appointed a "Board of Officers" as herein prescribed:—

COL. JOSHUA B. TREADWELL, Asst. Surgeon-General, *President.*

MAJOR B. JOY JEFFRIES, Surgeon 1st Corps of Cadets.

MAJOR EDWARD J. FORSTER, Surgeon 5th Regt. Infantry, *Recorder.*

By order of the Commander-in-Chief, JAMES A. CUNNINGHAM,
Adjutant-General.

AMONG the subjects brought forward for discussion before the American Public Health Association, at its recent meeting in Philadelphia, that of hospital-construction occupied a prominent place. Several papers were read, testifying to the increasing interest which this matter has awakened in the minds of physicians and sanitarians. These contributions show that the drift of medical opinion is strongly towards single-story pavilions and small wards. Fortified by statistics of the mortality in large metropolitan hospitals, as compared with that in field-hospitals, barracks and private practice, the advocates of

the reform in hospital-construction have a strong position against those who would perpetuate the system of building piles of masonry, which sacrifice sanitary qualities to architectural display. It is noteworthy that of the five papers read at Philadelphia on this subject, only one was in any degree conservative on the question. Dr. William Pepper declared that the arguments which had been adduced had failed to convince him of the propriety of tearing down many of the large, "palatial" hospitals, or of avoiding the building of similar structures in future, but had only shown him the necessity of remedying certain defects of construction and of repressing certain abuses of administration, such as over-crowding wards, and keeping them constantly occupied. He conceded the utility, however, of having tents or temporary pavilions as out-lying wards of large hospitals, in which to treat such cases as those of erysipelas, gangrene and the contagious fevers.

Assistant Surgeon J. S. Billings, U. S. A., presented a very interesting paper, in which he took a decided position in favor of single-story pavilions, built of inexpensive materials. The essay contained many practical points and suggestions, the fruit of careful study and an extended experience.

It is gratifying to record that the indications of a reform in hospital-construction do not consist of well-conceived theories merely; but that hospital-governments are disposed to apply the practical test of utility. The Massachusetts General Hospital has had two isolated, single-story pavilions under trial for some time, and the results are satisfactory. The extensive Presbyterian Hospital, of Philadelphia, will carry out the scheme with admirably-planned details. The City Hospital, of Boston, in the contemplated additions to its system of pavilions, will also adopt the advanced principles of construction, upon the unanimous endorsement of the Staff of the Hospital. Other institutions will doubtless follow the example of those bold enough to accept the innovations urged by sanitarians, and we may confidently expect an improvement in the death-rates after surgical operations in hospitals, and shall not be content with conditions that necessitate a hospital mortality rightly denominated by Prof. Gross as "frightful."

THE MODE OF ACTION OF THE IODIDE AND BROMIDE OF MERCURY.—In a communication by Professor Bellini, read before the Medico-Physical Society of Florence, and published in *L'Imparziale*, March 2, he points out as the result of his experiments on rabbits, that the iodides and bromides of mercury are converted into double salts in the intestinal canal, and that it is as such double salts that they act. Sulphur and the alkaline hyposulphites paralyze the action of the bromide and iodide of mercury, while richly seasoned diet, milk, the alkaline iodides, bromides and sulphides, and ammonia and its salts, increase their action.—*Edinburgh Medical Journal*, Nov., 1874.

The Hospitals.

BOSTON CITY HOSPITAL.

Service of Drs. Williams, Fifield and Gay.

Last Friday, Nov. 27th, the surgical operations were as follows:—

1. Amputation of Fingers.
2. Extraction of Cataract.
3. Hare-lip.
4. Re-amputation of Thigh.
5. Staphyloma of Cornea.
6. Hæmorrhoids treated with Galvano-cautery.
7. Ununited Fracture.
8. Removal of contents of Eyeball.

3. The case of hare-lip occurred in an infant five weeks old. The loss of structure involved the lip and palate on one side and the palate alone on the other. Dr. Gay dissected the lip away from the bone, carrying the dissection freely upward and backward. The free margins of the fissure in the lip were then refreshed by cutting from each a narrow strip downward from the nostril, leaving the two attached in place at their lower end and free above. These strips were now inverted so as to hang downward with their fresh surfaces apposed, and the whole extent of the incision was brought together from above downwards and held by silk sutures and an hour-glass shaped piece of adhesive plaster, applied to the cheeks. The pendulous bit of lip, turned down from above, was to be allowed to remain and to shrivel up, forming an artificial tip to the middle line.

4. The primary amputation of the thigh was in consequence of very severe injuries received in a fall from a staging, the patient being a vigorous adult male. The accident occurred last July, and so grave were the lesions that it was thought death must ensue. The patient had been treated in a tent-pavilion, and had recovered. But the flaps of the stump had retracted somewhat, leaving the end of the femoral shaft protuberant and necrosed, and covered by a considerable surface of granulations. The soft tissues of the stump were dissected upward away from the bone, and a portion of the bone was removed.

Dr. Fifield remarked that the ligature around the femoral had just come away, after being a source of irritation and annoyance several months. This part of the history of the case would have been avoided, in his opinion, if, instead of being tied, the artery had been twisted.

7. The patient was a young man, whose radius had been broken in July last. All attempts to secure union of the bones had proved futile. The forearm was considerably deformed by a bowing of the bone upward, and the fractured point admitted of free motion. Dr. Fifield exposed the point of injury by dissecting away the soft parts freely. The periosteum was stripped back and the ends of the bone were sawed off. A hole was drilled through each of the apposed ends, and the parts were then made fast by a copper wire, passed through the bones and twisted.

5. Dr. Williams extracted a semi-solid cataract (the nucleus being firm while the cortical layers were softer) by the method of Liebreich, opening the cornea upwards, with a narrow, straight knife, the upper margin of the incision being opposite the edge of the pupil. The edges of the incision were afterwards apposed by fine silk sutures.

8. An iron-moulder presented himself at Dr. Williams's clinic with an eye whose cornea had sloughed and whose deeper parts were inflamed, in consequence of molten iron having spattered into the patient's face while he was at his work. The pain from the injury was intense. To save the patient from the prolonged suffering attendant on progressive inflammation, Dr. Williams scooped out the contents of the eyeball, leaving the sclera behind as a stump for an artificial eye. This operation was deemed preferable to the entire enucleation of the globe.

Correspondence.

The Maine General Hospital.

Portland, Me., November 25, 1874.

In June, 1872, there was published in the Journal a sketch of the Maine General Hospital, which gave a brief account of the undertaking up to that date, a description of the plan, with illustrations, and a statement of the prospects of the institution. At that time, the walls of the north-eastern pavilion were erected and the roof put on, and the foundations of the central building were laid. It was then hoped that the hospital would be ready for the reception of patients by the summer of 1873; but the work proved more expensive than had been anticipated, the funds ran low, and numerous unforeseen delays occurred which prevented the opening until this month. Now, however, the institution is in running order, and as its progress must be a matter of interest to medical men throughout New England, a few words with regard to it will not be inappropriate.

Though the architect's plan of the hospital embraces an executive building and four pavilions, with the necessary accessory buildings, it was never the intention of the Directors to defer the commencement of its beneficent work until all the buildings were erected and furnished. From the beginning, the design has been to open the doors to the sick as soon as a sufficient portion was finished to permit the various departments of a modern hospital to be put in operation; and then, as necessity required and means allowed, to add pavilions until the whole plan was executed. Accordingly, their efforts have been directed to the completion of the first pavilion, the kitchen and the boiler-house, and these are now in actual use. Any future additions will, therefore, be simply in extension of the work already inaugurated.

The large ward in the second story is devoted to male patients, and the corresponding ward in the third story to females, medical and surgical cases being treated in each. The rooms in the north-eastern wing are used for the purposes contemplated in the original design, as also are the back central rooms on the first floor. For the present, the resident superintendent and his household occupy apartments in the south-west wing, in which also are the offices, dispensary, and so forth; and two of the front central rooms on the first floor are to be used as operating rooms, the other two as small wards. This, however, is only a temporary arrangement, and rooms are already being fitted up in the central building, which is entirely enclosed, for the better accommodation of the executive department. The heating, ventilating, cooking and laundry apparatus are of the most approved patterns, and give promise of fully meeting the requirements of the Hospital. As at present arranged, there are accommodations for about sixty patients, and the indications are that all available space will soon be occupied.

The medical officers as follows:—

Consulting Physicians and Surgeons.—Drs. John T. Gilman, William Wood, Hiram H. Hill, Thomas A. Foster, Charles E. Swan, Theodore H. Jewett.

Visiting Physicians.—Drs. Israel T. Dana, Horatio N. Small, George F. French, Augustus S. Thayer.

Visiting Surgeons.—Drs. Samuel H. Tewksbury, Wm. Warren Greene, Seth C. Gordon, Stephen H. Weeks.

Resident Physician and Superintendent.—Dr. Charles O. Hunt.

Pathologist.—Dr. Frederic H. Gerrish.

The ceremonies of dedication took place on the afternoon of Thursday, the 22d of October. The great ward in the second story was filled with a very large audience, composed in great part of ladies, who from the first have manifested the liveliest interest in the enterprise, and have ever been active in promoting its advancement. Many prominent physicians from various parts of the State, and other gentlemen of note in different walks of life, were present.

Mr. John B. Brown, the President of the Corporation, presided. The Rev. Thomas Hill, D.D., of the First Unitarian Church, and ex-President of Harvard University, offered the prayer of dedication. A dedicatory hymn, composed for the occasion by the Rev. Samuel Longfellow, with music by Herman Kotzschmar, was sung by a select choir. Then the Governor of the State, Nelson Dingley, Jr., of Lewiston, pronounced the oration. After congratulating his hearers on the prosperous condition of the Hospital, and briefly reviewing the main points in its history, he spoke of the vast advantage which it is destined to be, not only to those whose health is restored within its walls, but also to the medical profession, whose members would here learn the most useful lessons, by practising which they would benefit the entire community. He dwelt particularly upon the refining and elevating influence of a participation in benevolent ministrations, and the strengthening of human ties which make free institutions possible.

Speeches were then made by President Joshua L. Chamberlain, of Bowdoin College, representing the faculty of the Medical School of Maine, by the Rev. Dr. Shailer, of the First Baptist Church, the Rev. Mr. Jones, of the Chestnut Street Methodist Church, the Rev. Mr. Gibbs, of the Congress Square Universalist Church, and by ex-Governor Washburn. The exercises, which were throughout of a most interesting and impressive character, were closed by the singing of an original hymn.

The total amount of money received thus far by the Hospital is in the region of one hundred and thirty thousand dollars. Of this sum, forty-five thousand dollars have come from the State—twenty thousand by a legislative appropriation in 1870, and twenty-five thousand in 1874. Nearly forty thousand dollars were raised by a fair in this city in June of last year, and the remainder has been contributed by private individuals, for the most part by citizens of Portland. A little money remains in the treasury, with which to begin active operations; and the managers rely upon the liberality of the charitable people of the State for the funds which are needed to sustain the Hospital in such a condition as will be a credit to their intelligence and benevolence.

GAMMA.

Obituary.

EDWARD B. PEIRSON, M.D.

DR. EDWARD B. PEIRSON, of Salem, died Nov. 18th, in the fifty-eighth year of his age. He graduated at Harvard in 1840, and, four years later, took the medical degree of the same institution. He was an excellent physician, and universally respected. At his death, he was President of the Essex South District Medical Society.

At a special meeting of that Society, held on Saturday, Nov. 21, the following resolutions were unanimously adopted:—

WHEREAS, We, the members of the Essex South District Medical Society, at a special meeting now convened, have received the announcement of the death of our honored and dearly loved associate, Dr. Edward B. Peirson—at the time of his death and for several years previous thereto President of this Society—therefore

Resolved, That we mourn to-day the loss to the community and to ourselves, not only of a skilful physician and surgeon of large and ripe experience, but also of a personal friend of generous sympathies and great kindness, who has to a remarkable degree won our esteem and affection.

That with a modest estimate of his own acquirements and powers, his counsels were deservedly highly valued by the physicians of Essex County, and his help was sought with confidence in emergencies.

That we are deeply indebted to him for his services, always cheerfully and promptly rendered for the general welfare of the medical profession, and for the good judgment and courtesy with which he presided at our meetings.

That the younger members of our profession have abundant reason to speak gratefully of his timely words of encouragement, and of his practical sympathy for them during their novitiate, expressed by helps and opportunities he generously offered to them.

That by his catholicity of spirit, warm-hearted generosity and considerate regard for others, he contributed largely to cultivate and maintain that spirit of cordial sympathy and co-operation which exists to a rare degree among the members of the medical profession in our city.

That we recall with gratitude his patriotic labors for the relief of the wounded at Fredericksburg after the battle in the Wilderness. And we remember with sorrow that it was during this self-sacrificing service that he contracted disease which first permanently weakened his naturally vigorous constitution and at last added his name to the number of those who, during our late civil war, secured our national life by yielding up their own.

Resolved, That we cannot do otherwise than hold him in long and affectionate remembrance, and that we do hereby assure his widow and children and surviving relatives of our deep sympathy for them in this irreparable loss, and of our prayers that God will sustain and comfort them in their great sorrow.

Resolved, That a copy of these resolutions be transmitted to the family, the city press, and the Boston Medical and Surgical Journal.

Medical Miscellany.

A Warning to Doctors is issued by the *San Francisco News Letter*, which announces its intention in future of publishing after each death-notice the name of the attending physician.

The Edinburgh Medical Journal, of November, 1874, contains the following, in a notice of Dr. Buckingham's address on "The Mutual Relations of Druggists and Physicians:" "This is a very able 'address,' and contains much sound and practical advice, both to druggists and physicians, which we on this side of the Atlantic would do well to ponder, and, what is more important, act up to."

Prizes Awarded.—Five works (four German and one English) entered into competition for the prize offered by the German Empress and Queen of Prussia for the best handbook on technical war-surgery. At the suggestion of the prize judges, it was ordered that the prize of 2,000 thalers should be divided, and 1,000 thalers were awarded to Dr. Frederick Esmarch, Professor at Kiel, and 500 thalers each were given to Surgeon-Major G. A. Porter, of England, and to Dr. Joseph Landsberger, of Posen.

The *Canada Medical and Surgical Journal*, referring to the fact that honorable distinctions have been conferred by the Queen upon several of the medical profession in England, asks that the claims of the profession in Canada may be considered in the distribution of imperial honors, and suggests that the venerable Dr. George W. Campbell, Dean of the Faculty of Medicine in McGill University, and the father of surgery in Canada, would be a worthy recipient.

The new Glasgow Infirmary is to have, when completed, 350 beds. The grounds cover about twelve acres, and the cost will be about £100,000. Of the eight large wards ready for use, one-half will be assigned to medical, and one-half to surgical cases. There will be from fourteen to eighteen beds in each ward, with a breathing-space of 1575 cubic feet per bed. There will be a ward for skin diseases, to which medicated baths of all kinds will be attached. The surgical theatre will have seats for three hundred students. Drs. W. T. Gairdner and McCall Anderson have been appointed physicians, and Drs. McLeod and George Buchanan, surgeons.

ANNOUNCEMENT.

THE undersigned, Proprietors and Publishers of the BOSTON MEDICAL AND SURGICAL JOURNAL, hereby give notice that they have transferred to the present Editorial Managers of the JOURNAL all their right and interest in its future publication, to take effect after the close of the current volume, Dec. 31. The JOURNAL will, after the time mentioned, be issued by the well-known firm of H. O. Houghton & Co., No. 219 Washington Street. It is unnecessary here to allude to the causes which have led to this change, but it is proper to say that it has been effected in a manner satisfactory to both parties, and that the present publishers have full confidence in the intention and ability of their successors so to continue the work as to merit, in an undiminished degree, the support which it has so long in their hands received from the medical profession. This transfer will not affect the unsettled accounts of subscribers and others with the undersigned, to whom all moneys due to the end of the year are requested to be sent, and bills for the same are enclosed in this number. Subscriptions already received for the next year will be passed over to the new Publishers; but all hereafter intended for that year may be sent directly to them.

December 3, 1874. DAVID CLAPP & SON.

NOTES AND QUERIES.

"WUNUVEM" is requested to send his name and address.—EDS.

THE WOLF IN SHEEP'S CLOTHING.—In an inland town of California is an individual who claims to have a secret cure for diphtheria, to the sale of which he devotes his energies. This man has lately become religious [?]. At a church meeting, he is reported to have made a speech as follows:—"I have made up my mind to give my property to the service of the Lord. I have several thousand dollars in money, all of which I bestow on the church. I have some fine blooded stock, especially some Black Hawk horses, all of which I give to the church. I have also a lot of grain and farm produce, which in like manner I bestow on the church. There is but one thing in all my possessions which I reserve for myself, and that is my celebrated medicine for the cure of diphtheria, which I will continue to sell as heretofore for the moderate price of two dollars a bottle."—*Pacific Medical and Surgical Journal.*

They have a trick in Boston worth two of that; it is to treat disease, at a certain "Home," by "prayer and the judicious use of medicine."

MORTALITY IN MASSACHUSETTS.—*Deaths in sixteen Cities and Towns for the week ending November* 21, 1874.

Boston, 145; Worcester, 15; Lowell, 19; Milford, 2; Chelsea, 6; Cambridge, 16; Salem, 8; Lawrence, 10; Springfield, 9; Lynn, 12; Fitchburg, 5; Taunton, 4; Newburyport, 5; Fall River, 14; Haverhill, 7; Holyoke, 3. Total, 280.

Prevalent Diseases.—Consumption, 50; pneumonia, 32; scarlet fever, 14; typhoid fever, 6; measles, 6; croup, 6; diphtheria, 5.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 28, 149. Males, 71; females, 78. Accident, 4; apoplexy, 2; anæmia, 1; inflammation of the bowels, 1; bronchitis, 7; inflammation of the brain, 2; disease of the brain, 3; cancer, 3; consumption, 35; convulsions, 6; croup, 1; debility, 5; dropsy, 2; dropsy of the brain, 3; dysentery, 1; epilepsy, 1; scarlet fever, 4; typhoid fever, 4; bilious fever, 1; gangrene, 1; gastritis, 1; disease of the heart, 7; hernia, 1; homicide, 1; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; congestion of the lungs, 3; inflammation of the lungs, 17; marasmus, 6; measles, 2; metritis, 1; malformations, 1; old age, 4; peritonitis, 3; puerperal disease, 2; rheumatism, 1; scalded, 1; suicide, 1; caries of the spine, 1; thrush, 1; tabes mesenterica, 1; whooping cough, 1; unknown, 1.

Under 5 years of age, 55; between 5 and 20 years, 15; between 20 and 40 years, 38; between 40 and 60 years, 25; over 60 years, 16. Born in the United States, 100; Ireland 34; other places, 16.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCI.] THURSDAY, DECEMBER 10, 1874. [No. 24.

Original Communications.

A CASE OF OVARIOTOMY.

By GEORGE HOLMES BIXBY, M.D., of Boston.

THROUGH the kindness of Prof. D. H. Storer, on the eighteenth of October, 1872, I was called to see Mrs. C., who was suffering from an abdominal tumor. The patient was a native of Germany. Menstruation first appeared at fifteen, recurred every four weeks during four months, then ceased, but reäppeared three months later. From this time, the catamenia were normal. She was married at twenty-four, gave birth twice, the first ten months after marriage, the second two years after the first. During the first months of the last pregnancy, the abdomen seemed unusually large; in fact, the patient declared she was larger than at full term in the former pregnancy. At the end of gestation, the abdomen was of a most unusual form, and suggested the possibility of the existence of twins. From the patient's intelligent description of her case, I learned that motion was felt immediately above the pubes, and that another tumor, apparently distinct from the uterus, occupied the space immediately below the diaphragm. This condition occasioned great discomfort, especially in the last stages of pregnancy. Finally, labor commenced at four, P.M., by regular pains, and, during the night, a vigorous child, weighing eight pounds, was born.

After confinement, the abdomen was but slightly diminished in size, the upper tumor having assumed a lower position. On the seventh day following confinement, the patient became feverish, the abdomen enormously distended, tympanitic and sensitive, even to the weight of the bed clothing. The tenderness was particularly marked in the vicinity of the umbilicus. From these acute symptoms, she recovered in the course of ten days, but a tumor of considerable size remained, for which she sought medical advice at the Massachusetts General Hospital. August 18th, she was admitted at the Hospital, and was subsequently tapped by Dr. Hodges. The fluid discharged was characteristic of cystic disease of the ovary. After thirteen days in the hospital, she was discharged, relieved. October 1st, the menses returned, it being the first time since her confinement in June. From this date until March, 1872, a period of three years and four months, the menses were perfectly regular, there was no evidence of a return of the tumor, and in other respects she enjoyed excellent health. Early in February, 1872, a slight fulness was evident in the left ovarian region, and, later, she experienced a number of chills. The abdomen now began to enlarge rapidly, so much so that, on account of the great inconvenience it occasioned, on the 31st of March, she sought the advice of Dr.

French, of Malden. Between that date and August 16th, the patient was tapped twice by Dr. French. On both occasions, the fluid was of a dark brown color. A severe reaction, threatening the patient's life, followed the last operation, since which she has been confined to her bed.

At the time of my first visit, October 18th, 1872, her emaciation was general and extreme; a cold perspiration covered the face, the features were pinched, yet there was a clearness of the eye that denoted latent strength. The abdomen was highly distended, of a peculiar, elongated form, and measured thirty-six inches in circumference. There was no œdema, either of the abdominal walls, pudenda or extremities. Respiration was labored, at intervals interrupted by a short, spasmodic cough; the heart's action was quick and feeble. Percussion elicited an unbroken wave of fluctuation in all parts of the abdomen; the flanks were tympanitic. Vaginal exploration revealed the cervix uteri, a normal uterine cavity of two and a half inches, the organ ante- and latero-verted to the right. Bi-manual exploration gave evidence of fluctuation in Douglass's fossa, more distinct at the left. Diagnosis, cystic disease of the left ovary.

Notwithstanding these apparently unfavorable conditions, I offered the patient an operation as the last chance for life; this offer, after four days' consideration, she resolutely accepted.

October 23d, in the presence of Drs. Wheeler, of Chelsea, Warner, of Boston, Pinkham, of Lynn, Keniston, of Cambridgeport, and Hanscom, of Somerville, the operation was undertaken. For want of a "Crosby bed," a single wooden cot was employed. A cathartic, taken the night before, having failed to operate, a copious injection was given immediately before the operation, and was followed by a free dejection. False teeth removed, and the urine drawn, chloroform was administered by Dr. Warner. I made my incision a little to the left of the *linea alba*. Owing to the thinness of the abdominal walls, from the great distention of the abdomen, while attempting to divide layer by layer, a small opening was accidentally made in the cyst, which gave exit to a thin, purulent fluid. The adhesions were so firm, anteriorly, that it was impossible to distinguish, much less to separate their attachments to the peritoneum. Deferring farther manipulations in this direction, the evacuation of the cyst was undertaken with a large trocar, and completed by a free opening. The contents consisted of fifty pounds of a purulent, curdy fluid. Returning now to the incision, an attempt was made with the finger, and afterwards with a director, to separate the adhesions. This failing, in order to facilitate further exploration, the opening into the cyst was enlarged. Passing the entire hand into the cavity of the cyst, I detected, at the bottom, a hard, unyielding body, which resembled the uterus. The impression became more marked when I found it to be pyriform, and its inferior extremity attached to a broad band, not unlike the vagina in form. To clear up this point, the mass was raised, while Dr. Warner examined per vaginam, and established the fact that the vagina and uterus were in normal position, and independent of the above. When raising the pear-shaped body, I noticed that the cyst walls were partially inverted in folds. From this fact, it was evident that, at these parts, at least, there could be no adhesions. Dr. Pinkham came to our rescue with a most timely suggestion, namely, to tear

through one of the unattached folds, as near the incision as possible, and enucleate from behind.

I proceeded at once to put this plan into execution. I attacked the cyst wall in one of these folds, four inches from the incision, and tore through it with a blunt instrument. A single finger in the rent detected a free space immediately behind, but was soon arrested by strong, fibrous bands. Drs. Warner and Wheeler now assisting, with three pairs of hands in the abdomen, enucleation was vigorously prosecuted. From simple adhesions to firm, unyielding, fibrous bands, now with a single finger, then with all the fingers, we continued, breaking or tearing whatever opposed, until, after nearly thirty minutes of hard work, the last adhesion was reached and separated, and the sac, attached by a slender pedicle, raised from the abdominal cavity. These complicated manipulations involving the separation of adhesions from, at least, one-third of the surface of the cyst, were followed by very little hæmorrhage. Owing to the disturbed relations of the parts, it was impossible to ascertain, definitely, the seat of these extensive adhesions. The sac now being raised, and the pedicle spread out, so that, in a stooping posture, it was brought between myself and the light, the location of every important vessel was readily seen and avoided, when transfixing it with two preventer pins. The clamp was now applied upon the pins, the cyst removed with scissors, and the pedicle reposed in the lower angle of the wound. I now proceeded to wash out the abdominal and pelvic cavities with a solution of carbolic acid and boiled water (a fountain syringe being used for the purpose), the fluid being allowed to enter until it overflowed and escaped as clear as it entered. To insure complete evacuation, the patient was turned almost upon the face, and the abdominal cavity dried with soft sponges until all oozing had ceased. The wound was now brought together by three silver sutures, which included the peritoneum, the last left untwisted for the purpose of drainage. The surface of the abdomen, having been washed and dried, was protected by interlacing strips of adhesive plaster, according to the method of Prof. White, of Buffalo. During the entire operation, and up to six hours after, there was not the slightest sign of nausea. The patient was now covered with sufficient clothing, and left with the nurse, with instruction to give nothing by the mouth, for the first four hours, but brandy and water; subsequent to that time, milk and flour porridge. In case of pain, an opiate in the form of suppository.

Oct. 24th.—Twenty-four hours after the operation. A quiet night; frequent naps the entire night. 1, A.M., complained of a little discomfort in the abdomen, scarcely amounting to pain, for which a single suppository, containing one grain of opium and a quarter of a grain of extract of belladonna, was used. Pulse ninety. Urine clear; ten ounces passed during the night. Nourishment consists of milk and flour porridge every hour, with brandy and water, alternately.

Oct. 25th.—Forty-eight hours after the operation. Pulse ninety; tongue moist; abdomen flat; urine free, good color, voided voluntarily.

Oct. 26th.—Pulse ninety; urine free; tongue moist; abdomen flat. A pool of ichorous matter is noticed near the clamp; upon examination, it is found to proceed from the decomposing extremity of the pedicle, and not from the abdominal cavity, as was feared.

Oct. 27th.—A fair night, but is this morning quite restless. Pulse one hundred; skin hot and dry; urine less free, and of darker color; slight tympanites along the transverse colon. Ordered tincture of aconite, one drop every two hours.

Oct. 28th.—More comfortable; tongue moist; nourishment taken and relished. Urine free and good color; clamp removed, and pedicle left hanging by preventer pins.

Oct. 29th.—Complains of tension along the region of the descending colon; ordered five drops of oil of turpentine every three hours during the day. In other respects, doing well.

Oct. 30th.—Turpentine did excellent service; tympany entirely relieved; removed pins; slough thrown off from pedicle.

Nov. 3d.—Eleven days after the operation. Everything having progressed favorably during the past few days, no notes were taken. Portions of adhesive plaster and stitches removed; wound entirely healed, save at a point near umbilicus; the rest of the plaster to be left until after use of cathartic.

Nov. 5th.—Pulse eighty; urine free, and good color; appetite excellent; sleep refreshing; abdomen flat. Ordered a mild laxative, to be taken at night.

Nov. 6th.—Dr. Wheeler saw the patient with me. The aperient operated quietly, but thoroughly. Upon removal of the remainder of the plaster about the abdomen, we were surprised to find the tissue around the umbilicus thickened, and at one point decided evidences of fluctuation. Ordered poultices.

Nov. 7th.—Noticed a fistulous opening leading from the umbilicus to the upper angle of the wound. At the end of six days, fistula healed; induration subsided. The subsequent treatment of the case was now entrusted to the nurse, to be conducted upon general principles.

Dec. 8th.—I found the patient sitting up, able to walk about the apartment, and attend to minor duties. Upon examination of the abdomen, found the wound entirely healed, the cicatrix contracted down to an inch in length, the extremity of the pedicle sunken below the surface, not leaving as much as a trace of the usual navel-form depression after the use of the clamp. The abdomen bears quite rough manipulating without the least discomfort.

Jan. 1st.—Two months after the operation, the patient wrote me that she was quite well, and attending to all her duties.

I learned, later, that menstruation returned in February, and continued regularly. At the commencement of each return of the catamenia, a slight, muco-sanguineous discharge appeared at the cicatrix, which lasted but a few hours. A letter, dated October 23d, 1874, two years after the operation, informs me that menstruation had continued regularly until May last, and in September fœtal movements were unmistakable. Judging from the experience of Mr. Spencer Wells,* I predict for the patient a normal confinement.

For the happy termination of this remarkable case, not a little of the credit is due to the faithful care of the accomplished ovariotomy nurse, Mrs. S. S. Cleasby, of Boston.

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* Diseases of the Ovaries, page 474.

A SCRAP OF FAMILY HISTORY. A CONTRIBUTION TO THE STUDY OF CONSUMPTION.

By J. O. Webster, M.D., of Lynn.

Thomas S. was born in 1750, of a remarkably long-lived family, in which there was no trace of tubercular or other hereditary disease. He married, in 1779, Priscilla C., who was born in 1749, whose family was equally free from taint. Many members of both families lived to the age of 90. He died at the age of 82, from failure of the digestive function, probably dependent upon the excessive use of tobacco, all the organs, except his stomach, being still in perfect vigor. She died at 87, from old age.

They had six children:

1. Rebecca, who died at the age of 90, from old age.
2. Mary, died, aged 24, of consumption.
3. Harriet, died at 25, of consumption.
4. Thomas, who had tubercular disease of lungs for years, and died at 59, of pneumonia.
5. Daniel, now living, aged 86.
6. Samuel, died young of some chronic lung disease, probably consumption.

Here we have the problem of how to account for the development of consumption in this family, where we can find no hereditary taint, and where two of the children have escaped and attained to equal longevity with their ancestors. Let us look at their surroundings, and see if we can find the solution.

Thomas S. was a tanner, and settled, in 1775, on the Kennebec River, at Augusta. His house was but four or five rods from the water of the river. Here he lived until after the birth of the fifth child, when he removed to Unity, Maine, and established himself in immediate proximity to a pond of fresh water. Here, the sixth child was born. After a few years, he again removed, this time to the "Outlet" of China Pond, in Vassalboro'. Here he lived until his children were grown and had mostly left home.

Thus it appears that this family, during the childhood and youth of its children, lived in very close proximity to bodies of fresh water. To my mind, it seems that in this fact lies the solution of our problem, and that this is a very striking instance of the same kind as many already collected by Dr. Bowditch.

The Sanitary Condition of Jerusalem is reported to be deplorable. In a recent paper, read by Mr. Cooper before the Social Science Congress at Glasgow, it was stated that bad water, resulting from the filth and rubbish accumulated for centuries, renders the city one of the most unhealthy in the world. The cisterns and ducts are choked with sewage, and the mixture forms the daily beverage for thousands. Towards autumn, a sort of miasma sets in, and the febrile season begins. The Jewish population in 1865 was estimated at 9,000, and during a period of twelve months 5,000 cases of sickness were attended at their own hospital, and 8,000 at that of the Protestant Mission. So that if the whole of the inhabitants were not ill, the great majority of them must have been twice at hospital during the year. The Baroness Burdett Coutts offered to procure a better water supply, but the Moslem Government would not allow her to appoint an engineer to carry on the work.—*The Lancet.*

Progress in Medicine.

REPORT ON DERMATOLOGY.

By James C. White, M.D.

(Concluded from page 543.)

Scleroderma and its Relation to the Lymph System (Vierteljahresschrift für Dermat. und Syph., 1 Jahrg., 1 Heft, from *Deutsch. Arch. f. klin. Med.)*—Heller reports the results of the dissection of a case of scleroderma, which proved fatal after a year's duration, under symptoms of general anæmia and ascites. There were found extensive scleroderma of the face, neck, chest and upper abdominal region; fibroid nodules and lymphangiectases in the subcutaneous tissue; obliteration of the ductus thoracicus; multiple diffuse and miliary new-growths in the heart, muscles, serous membranes, kidneys and other parts; œdema of the lungs; incipient cirrhosis of the liver; induration of the spleen; hyperplasy of the uterus; hypertrophy of the walls of the stomach; induration of Peyer's patches; and atrophy of the mesentery.

A microscopic examination of the nodules from these various sources showed that they consisted of firm, fibrous tissue and a peculiar cell infiltration. They interrupted the course of the lymph-vessels, with which the collections of cells seemed intimately connected, and upon the serous membranes the new-growths showed a similar relation to the lymphangiectases.

Heller concludes, as the result of his investigations, that scleroderma is an affection occurring in the lymph system, and that, in this case, its starting-point was the ductus thoracicus, as this was most changed. Through disturbances in the lymph-vessels, an escape of lymph is caused, which leads to the connective new-formation of fibrous tissue, analogous to the process in elephantiasis Arabum.

Leprosy.—The recent report, by Dr. Carter, on Leprosy and Leper Asylums in Norway is reviewed in the September number of the *Edinburgh Journal.* Dr. Carter, in his connection with the Bombay Army, had made extensive study of the disease in the East (see Dermatological Report, June, 1873), and was, therefore, well fitted for these later observations. He states that, although the forms in Norway are identical with those in Bombay, their relative ratios are different. In Norway, the tubercular is 70, the anæsthetic 30 per cent. of the whole; in Bombay, compared with Norway, the anæsthetic form is twice as frequent. The tubercular form in Norway is of shorter duration, and more characterized by febrile exacerbations, caused, it is believed, by the reäbsorption of softened leprous matter from the skin-tubercles and its re-deposit in internal organs. Dr. Carter has been led to the conclusion that leprosy is not caused and maintained by endemic and defective hygienic conditions, but mainly by hereditary taint; and that the proper way to eradicate it is the rigid segregation in asylums of possible parents of diseased offspring, by which the propagation of the disease may be checked.

In the same number of the *Journal* may be found an account of the treatment of leprosy by gurjun oil, as reported by Dr. Dougall, medical

officer at Port Blair, Andaman Islands. He found 24 leprous convicts on his arrival there, most of them exceedingly aggravated and advanced cases; the food was insufficient, and the hygienic condition not good. The treatment, under which they had been, seemed to be without effect, and other methods, ordinarily employed, impracticable. It occurred to him, therefore, to try the oleo-resinous substance, obtained there in abundance from the Dipterocarpus lævis and other trees of allied genera, known in commerce as gurjun oil. This is a sticky substance, and it was mixed with various substances: cocoanut-oil, castor-oil, carbonate of soda. After rubbing with these preparations for some time, it was discovered that lime-water, three parts, mixed with one part of the oil, by violent agitation, formed a substance of the consistence of Indian butter, to which the name of gurjun ointment was given. It can be applied to the healthy skin without pain or blistering, and has no bad smell. With a smaller quantity of lime-water, it makes an excellent emulsion. The plan of treatment pursued was as follows: The lepers wash themselves early in the morning in a stream, using dry earth as a detergent; they then return to the ward, and each man is served with four drachms of wood-oil and lime-water in equal proportions; a quantity of gurjun ointment is then given them, with which they are required to rub themselves for two hours. At three in the afternoon, they get their second dose of the gurjun emulsion internally, and then two hours more of rubbing with the ointment is practised. Thus four hours daily rubbing with the ointment produces no vesication on the skin, and causes no pain. The emulsion is not disagreeable to the taste, and has, at first, no influence upon the digestive system, but it stimulates the appetite, and acts as a mild laxative; in larger doses, it acts as a powerful diuretic and evacuant.

The change on the tubercles is very marked. After some time, they seem to become more movable, and to be softer at the base than at the apex. The softening process gradually approaches the surface, and at last a watery bleb forms, which bursts. This process may take place two or three times, until the tubercle is quite reduced in size. No change was made in the diet of the lepers, and the results obtained after a year's trial of the method seems to be fairly due to this. Great improvement has followed in *all* the cases. Numbness has diminished, sores have healed up, swellings have disappeared, and patients who could only lie in helpless uselessness in a corner waiting for death, are proud of being again able to work, when such a hope had been abandoned long ago.

Treatment of Nævi.—Ragaine *(Jahresbericht der Gesammt. Med.*, 1874, from *Journal de Méd. de Bruxelles)* reports seven cases of erectile nævi cured by vaccination. The operation may be performed about the circumference of the tumors, or directly upon their surface. It is important that the points of insertion should be made as far apart as 1½ cm., and the best instrument for the purpose is the insect needle, as so great hæmorrhage follows the use of the lancet as to wash away the vaccine matter. To prevent such a result, it is better to allow the needle to remain in the puncture for a few moments. The size of the tumor is never a counterindication to the employment of this method. The destruction of the abnormal growth is supposed to be effected by the adhesive inflammation produced in the lower parts of the skin by the process of vaccination.

De Smet *(Jahresber.* from *La Presse Méd. Belge.)* recommends another method, successfully employed by him in a superficial, vascular nævus just below the right eye. A cork, of the shape and size of the growth, was perforated by fifteen needles, the points of which were allowed to project 2 mm. These were dipped in croton oil, and plunged quickly into the nævus. The operation was for a moment painful, but left behind it only a slight degree of burning. On the following day, there were swelling and vesicles, but the child did not complain of pain. A crust formed, beneath which the effect of the treatment could be partly seen; a large portion of the vessels were no more to be seen, and the others contained little coagula. Croton oil was lightly painted over the wound, and again in three days. The result was perfect; the spot had disappeared, the vessels were obliterated, and not a trace of the affection remained.

The advantages of this method are that no disfiguring scar is produced, of great importance in nævi of the face and neck; that the pain is slight, and the action rapid. De Smet especially recommends it when the nævi are superficial, and the child has already been vaccinated.

The Anti-herpetic Powder of Araroba (Annales de Derm. et de Syph., Tôme v. No. 6, from *Archives de Médecine Navale).*—Herpes circinatus (ringworm), according to M. Palasne-Champeaux, is very frequent in Cochin China, and exhibits there an unusual degree of severity and tenacity. Among the various methods of treatment employed against it, there is only one which he has always found successful, the application of a powder called Poh-Baia, or powder of Bahia. According to his researches, this consists of the powder of *araroba*, furnished by some unknown Brazilian tree, which is mixed with powdered charcoal before using. The *araroba* reaches Bahia in pieces evidently belonging to a tree of considerable size, and of a reddish-yellow color, like that of rhubarb.

The results obtained by him with this remedy were very rapid and complete, employed either against ringworm or psoriasis, three or four days being sufficient to make the patches disappear. It is employed in the following manner: After the parts are rubbed with strong vinegar, the powder is applied to them by means of a small tuft of cotton. (The action of acetic acid alone upon these lesions must not be left out of the question.)

Is Eczema a Mycosis?—Weisflog *(Beiträge zur Kenntniss der Pilzeinwanderung auf die menschliche Haut* from *Vierteljahr. für Dermat. und Syph.*, 1 *Jahrg.*, 1 *Heft)*, who, like Hallier, finds a mould in nearly everything, believing in the parasitic nature of impetigo contagiosa, as well as in its generally accepted relation to eczema, has made observations upon the crusts, scales, and other morbid products of the latter affection. After several days' manipulation, he thinks he finds in them fungoid growths, as might be found in nearly all organic substances under similar conditions. Hallier is, of course, ready with a name and a place for the newly-discovered mould. The investigations are not reliable, and should in no way affect present opinions concerning the etiology of eczema.

Alopecia areata.—Malassez has been investigating the question of the parasitic nature of this disease, and publishes (in the March and May numbers of the *Archives de Physiologie)* the results of his obser-

vations, which, according to the *Edinburgh Medical Journal* of July, from which the following account is taken, "illustrate in a striking manner the danger of dogmatizing from negative results." He examined the scales scratched from the epidermis of the bald patches, where the fungoid spores were found most easily. Grease was removed by ether or absolute alcohol. He finds very small, spherical spores, but no mycelium. The fungus occupies the most superficial parts of the horny layer of the epidermis, and is only met with accidentally on the hairs.

*Treatment of Alopecia areata (Porrigo decalvans) by the application of Liquor Ammoniæ.**—Dr. Duckworth *(Saint Bartholomew's Hospital Reports,* Vol. ix.) reports a large number of cases, which he has recently treated in the following manner: The whole scalp was rubbed with a small flannel mop, soaked in a strong solution of ammonia—so strong that neither the eyes nor the nose of the operator could bear it. The scalp appeared insensible to it. No pain, no inflammatory redness occurred. This was repeated daily, until the scalp became sensitive, when its strength was reduced. He concludes:—

That the local treatment by strong solution of ammonia is apparently more satisfactory than that of oil of turpentine.

That the renewal of the hair-forming function is probably hastened more by ammonia than by any other local application.

That turpentine appears to be only second in importance as a topical agent.

That the ammonia treatment is, on the whole, less universally applicable in these cases than turpentine.

That in certain cases—a decided minority—the ammonia treatment cannot be borne, because of its severity, producing vesication. Turpentine never produces these effects, and is a less formidable agent in all respects.

That ammonia may, therefore, be regarded as a valuable local application in these cases.

Gangrene produced by Carbolic Acid.—Poncet *(Bulletin Gen. de Therap.* in *Vierteljahr. für Dermat. und Syph.,* 1 *Jahrg,,* 1 *Heft)* describes the case of a girl, 13 years old, who had received a splinter under the nail of her forefinger. The part was immersed in carbolic acid for a moment, and then bound up in a compress moistened in the same solution. Eight days afterwards, the finger was found to be gangrenous for one-half its length. In consequence of this, Ollier, of Lyons, undertook some experiments upon rabbits and hens. When their limbs were immersed from three to five minutes in a concentrated solution of carbolic acid, they mostly died in a few hours, poisoned, but the survivors had gangrene. In order to prevent the fatal results of poisoning, ligatures were placed upon the limbs before immersion, and after this a soaking of five minutes was always enough to produce death of the parts. Ollier subsequently observed a second case of gangrene of the finger after the use of carbolic acid, and he believes that fingers and toes may be amputated in this way without pain and without danger.

Boracic Acid as Dressing.—Prof. Lister made a communication to the Medico-Chirurgical Society of Edinburgh *(Edinburgh Medical Journal,* Sept., 1874) upon a new dressing of this substance in rodent ulcer. Bo-

* See JOURNAL, June 12, 1873.

racic acid, in fine powder, one part; white wax, one part; paraffin, two parts; almond oil, two parts. The ingredients, after being mixed by melting the wax and paraffin, are stirred in a warm mortar till the mass thickens, and then set aside to cool, after which the firm substance is reduced in a cold mortar, in successive portions, to a uniform, soft ointment. This is spread thin on a fine rag, and when the almond-oil leaves it through capillary attraction, a smooth, firm layer remains, consisting of blended wax and paraffin, together with the boracic acid, which comes off the skin without leaving any greasy substance adhering, and does not at all confine the discharge, which is perpetually supplied with a sufficient quantity of the boracic acid to ensure absence of putrefaction, while not preventing cicatrization.

Other gentlemen had used boracic acid, and had also found it an excellent antiseptic and deodorizer. It had been employed mixed with unguentum simplex, one part of the former with two parts of the latter, and in the same proportion with starch and other powders. They had been used with relief in eczema, rupia, bed-sores, and the like.

Mention is also made in the *Journal* of a still better application for such purposes of an ointment like that of Prof. Lister, except that it contains half the quantity of salicylic acid, the antiseptic properties of which have been recently discovered. It is less irritating than the boracic acid.

Bibliographical Notices.

The Medical Use of Alcohol and Stimulants for Women. By JAMES EDMUNDS, M.D., M.R.C.P.L., M.R.C.S., Late Senior Physician to the British Lying-in Hospital, Senior Physician to the London Temperance Hospital. New York: National Temperance Society and Publication House, 58 Reade St. 1874.

THE whole question of the dietetic and long-continued medicinal use of alcoholic liquors is so intimately involved with custom, with prejudice, with appetite and with moral fanaticism, and a really fair discussion calls out such bitterness and bigotry upon both sides, that a truly scientific and popular work upon the subject seems almost an impossibility. The present little book, as may be inferred from the place of publication, is by no means to be considered impartial, and indeed does not pretend to be, but nevertheless clears away a good many side issues and discusses the subject upon its true basis, although ignoring or slighting some important observations.

One would certainly suppose that by this time any one paying attention to the subject would be familiar with the conclusive character of the experiments upon the elimination of alcohol, and no longer state that medical men have not come to a definite conclusion upon the matter. A better established fact is hardly to be found in physiology than that only a very minute part of the alcohol ingested is again eliminated as such, when a small dose is taken, and that, even with a heavily narcotic dose, more is destroyed in the organism than is eliminated as alcohol. The evidence afforded by the smell of the breath and of the cutaneous exhalations, which is spoken of by the author as proving an elimination, is really very fallacious, and, as a quantitative test, utterly worthless. If previous experiments, their own included, had not entirely destroyed the theory of Lallemand, Perrin and Duroy, that all the alcohol ingested is eliminated as such, by the lungs, the skin, and the kidneys, the last one of Anstie and Dupré should have done so, in which an animal was enclosed in an air-tight box (so that *all* excretions could be measured after a long-continued course of alcohol), then killed and the whole body

thoroughly analyzed for it. Only 11·3 grains out of 2,104 grains given could be accounted for by elimination, and only 23·66 were found after death.

The author gives the following very good definition: "A food is that which, being innocent in relation to the tissues of the body, is a digestible or absorbable substance, that can be oxidized in the body and decomposed in such a way as to give up to the body the forces which it contains." He then proceeds to take up the points separately and endeavors to show, by various pathological facts, that alcohol is not innocent in relation to the tissues. Referring to the statistics of life insurance companies in England, he states that the mortality among total abstainers is much less than among moderate drinkers, and also compares the ordinary average mortality of thirteen to sixteen per thousand of the average working classes and agricultural laborers with that of thirty in a thousand among those engaged in the sale and manufacture of intoxicating liquors, and who are assumed, as also lately by Dr. Dickinson, to be their own very good customers. It appears, however, that these facts, as well as the familiar ones in regard to cirrhosis of the liver, chronic gastric catarrh, &c., prove only, what probably no one, and certainly no medical man, would think of denying, that excessive habitual use of alcohol tends to the general deterioration of the tissues. The man who confesses to being a moderate drinker habitually is very likely to be somewhat more. If we may believe the statements which we constantly see in regard to the habits of the English population, there are few men in that country who do not take *some* alcohol in the course of the day, and those who take the least are the ones whom it would be more fair to term moderate drinkers. Dr. Edmunds's own statement would tend to confirm this view. He says:—"I could not go to one house in twenty in England at an ordinary reception, or to a dinner party among my own circle of personal friends, and meet another person who was a total abstainer."

As to the next points, every one admits the eminent absorbability of alcohol, and, as stated above, if there is a well-ascertained fact in the whole range of pharmaco-dynamics, the practically total oxidation of a moderate dose of alcohol is such.

The real turning point is upon the question whether the force evolved by this oxidation is in a form to be utilized as muscular and nervous work or as heat, and whether anything is gained by the substitution of alcohol for the ordinary hydrocarbons, such as starch, sugar and fat, which have in no dose any narcotic effect. This question is to be answered only by observation. As Dr. Edmunds says, under ordinary circumstances alcohol is far from an economical food; that is, supposing the system to be equally ready to use up either of the substances, the same sum of money will buy much more in the form of sugar or starch than in the form of alcohol.

The healthy man, with a normal digestion and a proper supply of food, should say, as did our friend Rip Van Winkle, whose theory was unfortunately so much more correct than his practice, "I tink I'm better widout it." Both experiment and clinical observation prove, however, that alcohol may take the place of a portion of the food. Dr. Hammond's careful experiments upon himself show the beneficial action of alcohol when the supply of food is less than the amount necessary to keep the body at a given weight, neither gaining nor losing; as well as its uselessness, and worse, when the food supply is sufficient for, or in excess of, the needs of the organism. Dr. Anstie has recorded, in his work on Stimulants and Narcotics, several very remarkable instances of life sustained for long periods upon the minimum of food with an abundant supply of alcohol, and it would probably not be difficult, by a little inquiry, to add to them many others as conclusive, even if somewhat less striking.

We can hardly throw aside the great amount of testimony as to the favorable action of alcohol when given in febrile and wasting diseases, and especially its failure, under these circumstances, to produce the usual narcotic effects of large doses, as well as the absence of the more marked evidence of pulmonary and cutaneous elimination.

We agree fully with Dr. Edmunds in his interpretation of the earlier phenomena of intoxication as narcotism and not stimulation. From the first flush upon the face, indicating paralysis of superficial vaso-motor nerves, the activity of the tongue, no longer restrained by timidity, by the fear of talking nonsense, or by decency, through the successive stages in which the higher faculties lose their control over the motor system and over the lower impulses, to deep drunkenness or even death, we have only steps in the same process.

Is there not good reason to suppose, however, that previous to this we have a stage of true stimulation, where a small amount of alcohol is capable of bringing the nervous system up to its full working power, without in the least dulling perception or interfering with the clearness of ideas. We do not find among the writers of Germany, few of whom are total abstainers, any inability to make nice distinctions or any incapacity for severe and exact mental labor. The late Dr. Anstie, whose views have largely inspired the foregoing sentences, was certainly far from wanting in "mental accuracy" or power. The line to be drawn between the stimulant and narcotic dose is indicated not only by the sensations of the partaker, but by other more demonstrable phenomena, such as the flushing from dilated cutaneous vessels, the diuresis from a similar condition in the kidneys, and the presence of a larger proportion (though still very small) of alcohol in the excretions.

For the perfectly healthy man, any dose, or any but the very smallest, is a narcotic. In certain forms of disease, experience shows that even a quantity which would be a very large dose in health has no narcotic effect, and we can hardly doubt that there are intermediate conditions in which alcohol, so far from benumbing the senses or obscuring the intellect, acts simply as material for the production of force, and may be looked upon as a food which requires no digestion, and sets free in a useful form its latent energy.

As we have taken occasion to disagree with a good many of Dr. Edmunds's scientific views, it is no more than fair to remark that we are by no means so far removed from him practically in many points. There can be no doubt that a vast amount of alcohol is needlessly consumed under the plea of health. We freely admit that no alcohol at all is an appropriate dose for a considerable portion of the community, that the remainder would be much better off with much less alcohol, and, also, that milk is a much better diet than beer or porter for the nursing mother.

It is very satisfactory to meet with a professed total abstainer, who is willing to discuss the subject upon the proper ground, and freed from the various shallow sophistries so much employed upon both sides. Dr. Edmunds says, "I do not believe there is any virtue in being a total abstainer." "If you do not see clearly that physiologically the use of alcoholic liquors is a mistake, your total abstinence and self-sacrifice for somebody else's benefit are not worth a rush; and, so far as I can see, total abstinence upon that platform has done nothing but retard the movement." "A man's duty is to take those things if they will help him do his duty to his family, to himself, and to the society in which he moves."

If temperance advocates could only be made to see as clearly as Dr. Edmunds does that religion and conscience can only make us do our duty, and that they have nothing to do with this question until we have determined what our duty is; and if they would only remember that false and unsubstantial physiological arguments do more harm than good to their cause, and can only deceive the ignorant, we should have less absurd temperance legislation, and it is to be hoped a corresponding diminution in the admitted enormous evils of the intemperance which this legislation fails to mitigate. E.

The Drift of Medical Philosophy. An Essay. By D. A. Gorton, M.D. Philadelphia: J. B. Lippincott & Co. 1875. Pp. 70.

It is only by a great effort that we restrain our orthodox pen from running a muck through this farago of nonsense, which is a second and revised edition of a paper read before the New York Homœopathic Medical Society.

But such a course, though it could not fail to make the skilful and unskilful laugh, might justly make the judicious grieve, for our space is needed for better purposes; and, after all, what is to be said of a man who tells us that sulphur is a remedy for sin, original or acquired, and that common salt is a moral prophylactic.

Nature Series. Polarization of Light. By Wm. Spottiswoode, F.R.S. London: Macmillan & Co. 1874. Pp. 129.

This little work is a valuable addition to the series. It makes the complicated subject which it treats of quite as simple as could be expected. We are not aware that there is anything specially new in it, but known facts and accepted theories are very ably presented.

BOOKS AND PAMPHLETS RECEIVED.

Nature Series. The Polarization of Light. By Wm. Spottiswoode, F.R.S. London: Macmillan & Co. 1874. Pp. 129. For sale by James Campbell.

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Psychical or Physical. By C. H. Hughes, M.D., of St. Louis. (Reprinted from the American Journal of Insanity, July, 1874.) Pp. 22.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. American Translation. Vol. I. Acute Infectious Diseases. New York: Wm. Wood & Co. 1874. Pp. 708. (From H. D. Brown & Co., Boston.)

Practical Examination of Urine. By James Tyson, M.D. Philadelphia: Lindsay & Blakiston. 1875. Pp. 182. (From A. Williams & Co.)

Clinical Lectures on Diseases of the Urinary Organs. By Sir Henry Thompson. Third American Edition. Philadelphia: Henry C. Lea. 1874. Pp. 195. (From A. Williams & Co.)

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History of the Conflict between Religion and Science. By John W. Draper, M.D. 1875. Pp. 373. New York: D. Appleton & Co. (From A Williams & Co.)

Cases of Hysteria, Neurasthenia, &c. (From the Chicago Journal of Nervous and Mental Disease.) 1874. Pp. 14.

The Treatment of Marasmus, Whooping Cough and Debility in Children by Electricity. (From the Detroit Review of Medicine and Pharmacy. 1874. Pp. 7.

The local Use of Tannin.—Dr. Philip Miall states that, for a number of years, he has employed a concentrated solution of tannin (tannin ʒi., water ʒvi.) as an astringent topical application. This powerful astringent, which is almost free from irritating properties, is said to form one of the best dressings for wounds, far superior to collodion, and even less irritating than the styptic colloid, which it somewhat resembles. If applied by a brush and allowed to dry, it soon forms a pellicle which excludes the air, and gives ease to pain. It may be applied to almost any form of ulcer, and to wounds after amputation, or other operations, especially when not very deep. It answers well, for instance, after the operation for hare-lip, painted over the pins and threads, in the same way as collodion is sometimes used. For cracked nipples, this solution, diluted with an equal quantity of water, is the best application, and corresponds to the tannin solution commonly used for this purpose. It is also recommended for the purpose of reducing enlarged tonsils, and as a styptic in severe uterine hæmorrhage.—*British Medical Journal.*

Boston Medical and Surgical Journal.

Boston: Thursday, December 10, 1874.

An examination of the Ninety-second Annual Catalogue of the Medical School, which is reprinted from the general catalogue of Harvard University, exhibits very gratifying evidence of the prosperity of the school, and of the success of the new system of education. The number of students seems to be steadily increasing, and is now two hundred, divided as follows: Graduates, 11; third class, 29; second class, 52; first class, 108. It will be seen, on comparison with the catalogue of last year, that there is no longer a group of unclassified students recognized, and that students in single branches, except in the graduates' course, are not now accepted—two important changes. The comparison shows, too, how permanent the connection of the students with the school has become, the names of but four members of the second class of last year failing to appear in the list of the present third class. The standing in general scholarship, too, of the students is perceptibly more elevated from year to year, eighty of the present members of the school having received college degrees before beginning the study of medicine.

The changes in the list of instructors have been few during the year. Dr. Minot has taken the chair of Theory and Practice, made vacant by the resignation of Dr. Shattuck, and the Professorship of Hygiene terminated with the death of Dr. George Derby. Three additional instructors have been appointed, one in histology, chemistry and materia medica, respectively. The whole number of teachers is now thirty. A glance at the tabular views, which exhibit the great amount of instruction given to each class, shows, however, the need of so large a body.

By a new regulation of the General Council of the University, the degree of Master of Arts is now open to graduates of the school, who are also Bachelors of Arts, and who pursue an approved course of study in medicine for at least one year after taking the degree of Doctor of Medicine.

The examination papers in the eleven departments, in which the student is now required to pass before obtaining his degree, and which were used in the last June examination, are published in full, and illustrate the completeness and thoroughness of the education now given in the school. They will be strange reading to those, even, who graduated not more than five years ago.

We trust that this little pamphlet may carry to all parts of our country the information that a systematic and thorough medical education may be obtained in one school, at least, in America.

It is very gratifying to mark the sympathy with which the success of the new system at Harvard is watched in other cities. The old doubts as to the feasibility and propriety of the reform are now dispelled, and the question for other schools resolves itself, as the *Philadelphia Medical Times* implies, into that of "Will it pay to do what is right?" Although Harvard's acknowledged preëminence would be endangered thereby, we most sincerely hope that her example may be followed elsewhere, on account of the great good that would accrue to the profession. In this connection, we would quote some honest and sensible remarks from the *Cincinnati Lancet and Observer:*

"The medical profession of the West need and will have colleges that will give students of medicine equal advantages in their course of study with those to be obtained at Harvard. Even now, Cincinnati and other places in the West have their representatives in Harvard University. Not because those representatives desire to live three years in Boston, or wish to forsake friends at home during that time, or because they think it a good thing to largely add to the expense of their medical education, or that the faculty of Harvard College is composed of superior teachers or more eminent men than those who compose the faculties of a dozen other colleges, or that the clinical advantages in Boston are superior to those offered in other cities; but because of the plan adopted and the thoroughness of the teaching in that institution. We have no special predilection for Boston or Harvard University, but we do say all honor to the men who have had the courage to change the method of instructing medical students that has been pursued in this country for more than a century, recognizing the fact that the world moves, and, with it, the science of medicine has been making giant strides."

We hope it may be long before our medical students sink to the level of those of the Continent of Europe. In England, they are a very respectable class, corresponding very closely with American students, but in France, Germany and Russia, there are many who appear to devote themselves to the lower ranks of politics rather than to medicine, and in disturbed times contribute a very turbulent and dangerous element. The governments of Russia and Prussia are in no humor to submit to any liberties; all disorderly manifestations are promptly and severely repressed; but in Austria, and still more in France, the students are more formidable. Most disgraceful scenes have recently occurred in Paris, when M. Chauffard attempted to begin his course. His political ideas appear to have been unpopular, and he was suspected, we do not know whether justly or not, with conspiring

to remove M. Wurtz from his position of Dean of the Faculty. M. Wurtz, who is generally respected, made every effort to calm the students, but without avail, and as they appeared determined that M. Chauffard should not speak, the school has been closed for a month. We understand that the dissecting-room and some laboratories continue open.

We reserve for another time the discussion of the report of the Park Commission, but may state now that on the whole it is very satisfactory. The point, however, to be considered at present is whether we can afford a park at all. We are willing to believe that in time it will pay for itself, but that time is not near at hand, and, with the water and drainage questions still unsettled, we feel that the incurrence of further debt is not justifiable.

Professor Tyndall, by recent letters, has again invited the attention of critics to himself. While, as yet, the excitement consequent upon the views advanced in his address at Belfast has by no means subsided, he has been engaged in writing to the public, through the columns of the *London Times*, upon Typhoid Fever. The leading medical journals of London contain editorial articles regarding the statements contained in these letters, and their criticisms are of such a character as to incline us to believe that Prof. Tyndall has not gained much honor for himself by assuming to be an authority in matters pertaining to medical science, and in presuming to decide upon subjects with regard to which the medical profession have, up to the present time, been in doubt.

Prof. Tyndall asserts that typhoid fever is a very contagious disease, as smallpox is contagious, and that it can arise in no other way than by contagion. He adopts Dr. Budd's theory that the excreta of typhoid patients contains the poison, and contends that a drain gives enteric fever because it is "a direct continuation of a diseased intestine."

In reply, it seems hardly necessary to state that to most minds in our profession facts seem to point strongly against the doctrine that typhoid fever is a highly contagious disease.

In his description of the pathology of typhoid fever, Prof. Tyndall writes as follows: "The pustules or protuberant patches, called 'Peyer's patches,' thicken and stand out in relief from the surface of the gut." "What medical man could think or speak of Peyer's patches as 'pustules?'" says the *Medical Times and Gazette*, which concludes its editorial notice as follows: "'Let the shoemaker stick to his last;' let Prof. Tyndall attend to his beams of light, and those

phenomena about which he can at least speak intelligently, and leave biological inquiries to those who have been better trained to pursue them."

We learn by the *Medical Record* that the vexed question of the possibility of spontaneous combustion has of late been under discussion before the Surgical Society of Paris. M. Chassagniol, of Brest, stated that spontaneous combustion was first mentioned in 1692, since which time it has had some partisans in France; but in Germany, especially by M. Caspar, its possibility has been denied. M. Chassagniol, in his researches, has been unable to find any scientific record of, or any competent authority for, a single case of spontaneous combustion in the human body. The original idea was that the alcohol in the bodies of drinkers took fire. A corpse, however, burns very slowly after having been steeped in alcohol for several days. The attempt in recent times to find an analogy between the combustion of stacks of hay and straw and of the human body has been futile, as there is no resemblance between them.

Regional Diagnosis in Paralysis from Brain Diseases.—In a clinical lecture published in the *Lancet* of Oct. 31, 1874, Dr. H. Charlton Bastian endeavors to supply such data as may serve as a guide to a more or less definite regional diagnosis in cases of cerebral disease.

Large lesions in the central parts of the pons varolii may give rise to profound "apoplectic" symptoms, characterized by deep coma, complete resolution of limbs on both sides, flapping of cheeks during expiration, insensibility of conjunctivæ, and notably contracted pupils. With such lesions in this situation (especially when suddenly produced), death may take place in a few minutes, a few hours, or in a day or two. Where there is a speedily fatal result, the patient remains in the stage of collapse with a temperature lower than normal. But where the life is prolonged for a few hours, the temperature of both sides of the body steadily rises, till at the time of death it may have attained to 109° or 110° F., a condition of the profoundest coma continuing throughout.

When the lesion is slighter in extent, the patient after a time regains consciousness, but there is a generalized paralysis, more or less equally distributed over the two sides of the body. Sensibility may be notably diminished or perverted in one or more of the limbs. When, in addition to such signs, there is well-marked but irregular paralysis about the face, involving eyelids, mouth and tongue, and when there is also difficulty in deglutition, associated with well-marked difficulty in articulation, or actual speechlessness, not of the aphasic kind, we may be pretty sure we have to do with a lesion involving the central parts of the pons varolii.

If the lesion be in the lower half of one lateral region, we have what is called "alternate hemiplegia," with an unusually well-marked paralysis on the side of the brain lesion, and a more or less complete motor and sensory paralysis of the limbs of the opposite side. The hemiplegia may set in with apoplectic or epileptic symptoms; whilst in other cases it supervenes more gradually, without either loss of consciousness or convulsions. After the effect of the first shock has disappeared, the temperature of the paralyzed limbs is generally found to be about 2° higher than it is on the paralyzed side.

Injuries in the upper half of one lateral region produce a hemiplegia of

the same kind as that last described, with the exception that the paralysis of the face is on the side opposite the brain lesion,—that is, on the same side of the body as the paralysis of the limbs.

Whether the lesion be in the upper or in the lower part of one lateral half of the pons, the facial paralysis is generally very well marked, so as to involve the orbicularis palpebrarum. Associated with it are usually some difficulties in deglutition and articulation, and there is often a copious overflow of saliva from the paralyzed side of the mouth. The degree of impairment of sensibility on the paralyzed side of the body is variable, there being at times a condition of unilateral hyperæsthesia instead of anæsthesia, and either state may be associated with painful sensations in the limbs, or with peculiar subjective sensations of "coldness," even when the temperature of the part is actually higher than natural. The fifth nerve is frequently implicated in these cases of lesion in the lateral region of the pons, so that we may have anæsthesia, hyperæsthesia, painful or anomalous sensations on the corresponding side of the face, accompanied by a decided unilateral impairment in the sense of taste. There will also be a weakening of the temporal, masseter, and other muscles of mastication on the same side, if its motor division is damaged or interfered with. Lesions of the pons are also apt to be associated with what is known as "emotional weakness." There is a proneness to burst into tears or to laugh. The tendency to cry is generally more marked than to laugh. This tendency to emotional weakness in lesions of the pons is in keeping with what we know concerning its functions as a centre, under whose influence the external manifestations of emotional states are regulated.

Where lesions of the pons cause irritation of parts of the surface of the fourth ventricle, we may find sugar in the urine. In other cases there may be polyuria or albuminuria, if lower portions of the fourth ventricle are implicated.

Some lesions in the crus cerebri can be diagnosticated with great certainty, while in others the diagnosis is difficult. These differences depend on the precise seat and extent of the lesion. Should the inner and inferior part of the crus, near the pons, be injured, or should there be a larger lesion, implicating this and contiguous parts of the crus, the third nerve on the same side becomes paralyzed, whilst a hemiplegic condition is also established in the opposite half of the body; the diagnosis should then be easy. If, on the contrary, the lesion implicates only the upper and outer part of the crus (that is, the part next the cerebral hemisphere), the diagnosis becomes much more difficult. There is no distinctive sign of a lesion in this situation. The combination of symptoms produced by lesions in the lower and inner part of the crus is characteristic, and were well described by Dr. Herman Weber some twelve years ago. The condition induced is a peculiar form of "alternate paralysis." The third nerve is paralyzed on the side of the brain lesion, as is shown by ptosis, dilatation and sluggishness of the pupil, by external squint and by great improvement in the movements of the eyeball. All the muscles of the ball are paralyzed, except the external rectus and the superior oblique. The coëxisting hemiplegia on the opposite side of the body approximates in its general character to that produced by a lesion in the upper part of one lateral half of the pons varolii.

Lesions in, or just outside, the optic thalamus often involve at the same time the upper part of the crus cerebri. It will be found most advantageous to compare the effect of injuries to the thalamus with those produced by lesions in, or just outside, the corpus striatum. (These latter have been described in a previous lecture, and are such as occur in a typical case of hemiplegia.) The motor paralysis, occasioned by lesions in or about the thalamus, is generally less pronounced than that which would have been occasioned by lesions of equal extent in or about the corpus striatum. Early tonic and clonic spasms in the paralyzed limbs, or about the face and neck, are especially frequent with lesions of the thalamus. They are quite exceptional when we have to do with lesions of the corpus striatum. There seems to be no great difference as to the degree of impairment of sensibility in

lesions of the thalamus and corpus striatum. The difference in temperature between the limbs on the paralyzed and on the sound side of the body is generally more marked in lesions of the thalamus than in those of the striate body. Aphasic difficulties in speech, which are so common in lesions in, or just outside, the left corpus striatum, are not as a rule met with in similar lesions of the left thalamus. It not unfrequently happens, however, that these two bodies are damaged simultaneously; and then we should have the combination of aphasic symptoms, together with early rigidity and other signs more indicative of a lesion in the thalamus.

Forcible Taxis in Strangulated Hernia.—Max Scheide, of Halle, has published, in the *Centralblatt für Chirurgie* for Sept. 12 and 19, an article, in which he advocates the employment of forcible taxis in strangulated hernia. He is convinced that this mode of treatment is far too much neglected by surgeons, most of them being in favor of early operative interference. He gives statistics of forty-seven cases observed by himself between April, 1868, and August, 1874, under which he includes only inguinal and femoral hernias. Of these, forty-one were replaced, with one death from "reduction *en masse*," after forty hours' strangulation. Ten were submitted to operation, of whom five died. Half his cases—viz., twenty-five—were seen within the first twenty-four hours, and were relieved by immediate taxis, but there were sixteen in which strangulation had existed for from two to six days, and of which all but one had been previously submitted to a more or less energetic taxis with or without chloroform; and yet, with the one exception of a reduction *en bloc*, all were replaced by him without extraordinary difficulty.

The reason of his success he attributes to the fact that he is not afraid to employ greater force than is the habit of others, but he is always careful to come to some definite conclusion of the condition of the gut before taxis is attempted. Gangrene of the gut or omentum he thinks never occurs without œdema of the skin over the hernia, and the sense of fluctuation in the tumor shows the presence of a considerable amount of fluid in the sac, and, therefore, a marked interference with the circulation in the gut; in either of these cases, he at once proceeds to operation.

He holds that, in determining the question whether taxis should be employed, tightness of the constriction is a more important element than the mere duration of the strangulation.

When the patient is under the influence of chloroform, and a definite diagnosis as to the nature of the hernia has been arrived at, he proceeds in the following way: with the thumbs placed together, he exerts a powerful pressure on that side of the rupture which appears nearest to the aperture, through which it has emerged, moving it first to one side and then to the other, and pressing on the top of the tumor only when it is a very small one. In his successful cases, he seldom takes more than five minutes, and never more than a quarter of an hour; "but during this time," he says, "I have always employed a much more considerable force than I have ever seen used by others, or than most would consider justifiable."—*Medical Times and Gazette*, Nov. 14, 1873.

Typhoid Fever "is best endured by lean, though at the same time muscular, persons; but even in the case of ill-nourished, anæmic or chlorotic individuals, the prognosis is far more favorable than in the case of the corpulent. Of 53 patients in the Hospital at Basle, who would have been called ill-nourished, anæmic or chlorotic, 7 died, or about 13 per cent., while the average mortality at that time was about 15 per cent."—*Ziemssen's Cyclopædia.*

The mortality of persons employed in different manufactories and of their children amount to almost double that of the other classes of the population. —*Ziemssen's Handbuch.*

Correspondence.

Letter from Philadelphia.

PHILADELPHIA, Nov. 21, 1874.

MESSRS. EDITORS,—The regular medical schools of Philadelphia—I refer, of course, only to the University and Jefferson schools—opened this fall with good classes. The difference, however, between the two universities is greater than it has been for years. This difference is in favor of the Jefferson Medical College, which has a class of over 425 students, the University medical class numbering less than 300. My impression is that the Faculty of the University are disappointed, yet they anticipate a yearly increase of attendance hereafter. Their beautiful lecture rooms, their hospital, laboratories and superior advantages for teaching should be great inducements to earnest students. But as yet, notwithstanding there are sufficient accommotions for lodging the entire number of students in West Philadelphia, they prefer the city proper, and object to the long walk from their boarding houses to the University. This is a trivial matter. The truth probably lies in the wish of the students to be in the city in the evening.

The attendance of medical students at the Philadelphia schools since 1861 has been nearly as good as before the war, previous to which the majority of students were Southerners. The war, however, created a demand for surgeons, and hence the ingress from the northern and frontier States became large and steady. The wealth developed by war contracts, industrial and railroad affairs, increased this influx of Union men. Since peace was declared, the Southern students have reappeared, but in smaller numbers than formerly, and they do not represent the same social degree. Before the war, this class of students came with well-filled pockets, were representatives of wealthy planter-families, and studied medicine merely for plantation use or as a means of obtaining a title. Lincoln's proclamation relieved the planters of the necessity of caring for the health of the negroes, the freedmen have no means of paying for medical treatment, the planters no longer have a domestic reason for educating their sons as physicians, and as for titles, those won during the war overtop all others. Hence the Southern medical student of to-day chooses the profession as a means of obtaining a livelihood.

I have recently learned (what, previously, I had not suspected) that in the Jefferson School the students have been permitted, since shortly after the establishment of the new régime in the Harvard School, to elect their system of study. They are allowed to follow the Harvard plan, and be examined at the close of each year, but with this difference, that the Jefferson student may elect his own branches of study. The yearly examination is final so far as those studies are concerned to which he has devoted himself, and differs from the old system of *general* examination in this respect—proficiency being graded by a system of numbers, the student must win at least an 8 (10 being the highest number) in order to pass. Otherwise, he is remanded to the studies in which he has been examined. Under the old system of one final examination, if the student be marked 6, he passes. Hence, it will be seen that the new system necessitates a higher degree of proficiency. I ought to add that students who follow the elective plan are obliged to pay for the full course, but are not required to attend any other lectures than those which are in direct relation with elected branches of study. A system of partial payments, depending upon the number of yearly branches elected (the rates being $20 for the ticket of each professor), would, it is thought, be confusing. This may appear unjust, unless the student appreciates that all the advantages, in the study of his chosen branches, are extended to him for an entire year, and that at the end of his course he will have paid no more for his tuition than if he had followed the old system of study.

The majority of students, I regret to say, choose the latter course, which simply causes a cerebral dyspepsia, and so wade for three years in a medical

olla podrida. This might, perhaps, be less common if the new plan of study were brought to the attention of the student with more emphasis.

The elective privilege is now extended to the students of the University Medical School. The best kind of knowledge is systematized knowledge. Every medical teacher in America recognizes this truth ; but custom forges chains of iron, and the unhappy competition between medical schools reacts upon the public, most unfortunately, in the guise of half-fledged practitioners. The millennium of medical instruction in America will appear only when teachers can insist upon a high standard of proficiency in study, without fear of injuring either their own interests or those of their schools. This result will probably never be reached until the honorarium of teachers and the expenses of the schools become provided for by endowments. It is to be regretted that Harvard is the only medical school in the country which follows the system of classifying students.

The annual meeting of the American Public Health Association closed on Saturday last. Many valuable papers were read by men wise and thoughtful in sanitary science. Let us hope that the useful suggestions offered may bear fruit in this city; for the improvements in public hygiene and sanitary regulations which were recommended by this body of experienced men form a startling and woful contrast to the present condition of Philadelphia. The *laisser-aller* care of our streets is simply amazing; yet, aside from a few calm and intermittent protests on the part of the daily press, aside from an occasional weak and paroxysmal surge of the Board of Health, nothing is done. The sanitary conference warmly advocated the general adoption of the cheap, wooden pavilion hospital, urging its superiority to any form of permanent structure—which reminds me that one ward of the Presbyterian Pavilion Hospital is nearly or quite completed. Its non-sympathizers thus far find only one flaw in its perfection. They say that the walls, instead of being plastered, should have been plain, closely-jointed wood, caulked, oiled and varnished. They argue that no plaster can be rendered so dense as to be impervious to moisture. Perhaps this is true. At any rate, in the building now erected, the walls will receive three heavy coats of paint, and can be thoroughly and frequently washed. This imperfection in the construction of the wards has probably found a remedy in the ingenious suggestion of Dr. Mitchell, who proposes that in the buildings yet to be erected the plaster shall be replaced by glazed tiles, which, besides being an utterly waterproof material, will, if arranged with a view to harmony of shades, add a new beauty to the ward. The plan will, perhaps, be too expensive. The pavilion now being completed is an experimental building. Its faults will be corrected in the wards not yet erected.

The Hyrtl collection of preparations of the ear, placentæ, crania, and the corrosion preparations has arrived, and the various objects have been arranged and are now on exhibition in the Museum of the College of Physicians and Surgeons. They are a perfect dream of beauty and exquisite, delicate finish. The collection will become notorious. I doubt if there be another like it in the world. It would repay one for a long journey. At some future time, I intend to write you more at length in regard to individual specimens.

You know, perhaps, how much more liberally specialties are encouraged in Boston than in Philadelphia. A few years ago, a gentleman came to this city from Boston, intending to practise as an oculist. He came furnished with letters to some of the leading Philadelphia physicians, who not only discouraged him, but assured him that if he persisted in his intentions he would be considered a *quack*. On the day succeeding the presentation of his letters, certain physicians, upon meeting the gentleman on the street, gave him the cut direct. The obstacles in his path were many, for he was the pioneer specialist. His experience was a bitter one. But, encouraged by physicians of broader tendencies, he persevered and became successful. Since his *début*, specialists have become more common. We have eye, ear and skin clinics in the schools, and within five years four dispensaries for special diseases have been opened. One of these, devoted to treatment

of the throat, languished and died because of unavoidable neglect, I surmise, on the part of the physician in charge. The remaining dispensaries, one being devoted to the skin, one to the eye and ear, and the third to the ear alone, are doing good service and are abundantly attended by charity patients. Yet, in the establishment of these institutions, the gentlemen who founded them vainly wrestled with professional prejudice. Dr. Louis A. Duhring, who conducts the dispensary for skin diseases, found that, before he could open *en régle*, he must throw a sop to the prejudiced in shape of a charter, to obtain which he was obliged to spend considerable money and more time. He secured his charter. Then followed the necessity of forming a board of trustees, appointing a president, treasurer, &c. &c. After compassing heaven and earth in this manner, a pupil of every leading skin specialist in Europe, he was allowed to open his dispensary without being called an empiric. Now what is the result? The board of trustees is a lay figure. With the help of one assistant, appointed by himself, Dr. Duhring does all the work, collects all the funds which support the dispensary, writes his own report; his brother is treasurer; the Duhring family contribute one-third of the supporting funds. There is an annual meeting of the board; they listen to the Doctor's report, and he is then left in independence for another year! Dr. Duhring opened his dispensary in January, 1871, during which year he treated 425 cases and 39 varieties of skin disease; during the year 1872, the number of new cases was 401, number of distinct diseases, 39; 441 new patients were registered and 33 varieties of disease treated during the year 1873. This is the only dispensary of the kind in Philadelphia. Dr. Duhring's success in treating the patients has been excellent, nearly 75 per cent. of patients having been cured and relieved, 20 per cent. not having reported result, 5 per cent. still under treatment. These figures show an average of the result during the first three years of the dispensary.

Dr. Geo. Strawbridge came from Europe, five years ago, after devoting much time to the study of the eye and ear. He also determined to open a special dispensary, his plan being to put himself under the wing of the old Philadelphia Dispensary for diseases in general (founded in 1786). The struggle with the Board of Managers was as warm as a political contest. A branch dispensary for the treatment of special diseases would be an innovation. It could not be permitted. But Strawbridge was in earnest, and by the help of pluck, ingenuity and friends, he won his end. The eye and ear department of the dispensary was then established in a section of the city somewhat removed from the main department. During the year 1873, Dr. Strawbridge treated 910 eye and 420 ear patients. I have not the statistics of previous years, but the number of patients increases yearly. At Will's Hospital, there is also a daily eye clinic for treatment of out-patients. The number of patients averages over 3,400 yearly.

Finally, Dr. Charles H. Burnett, an accomplished aural surgeon, opened the "Philadelphia Infirmary" for diseases of the ear in April last. He already has a goodly daily attendance of patients, but has not yet made a report. He was also obliged to secure a charter, and his dispensary, like Dr. Duhring's, is supported by the gifts of private individuals, the donation of which depends entirely upon the energy of Dr. Burnett.

Each of the several general dispensaries of Philadelphia has an obstetric department (obstetrics, curiously enough, not being considered a specialty), but aside from this division of labor, with the single exception of Dr. Strawbridge's branch of the Philadelphia Dispensary, all patients are treated by the physician in charge, who has one assistant and one apothecary.

I hope the day will come when the excellent arrangement of the Boston Dispensary will be adopted here, the patients classified and treated by men skilful in the various specialties. The yearly average number of patients treated at the two principal dispensaries of Philadelphia amounts to over 20,000, which suggests a generous allowance of work for two physicians.

UNGENANNT.

Medical Miscellany.

WE are happy to see that the *New York Medical Record* will become a weekly journal with the new year.

A NEW YORK MAN has christened his daughter Glycerine. He says it will be easy to prefix Nitro if her temper resembles her mother's.

SALICINE is recommended by Dr. Mattison in cases of chronic diarrhœa. He gives it, successfully, in doses of five grains, every four hours, to adults. —*London Medical Record.*

BLACK DEATH.—It has been computed that the pestilence vulgarly termed the "black death," which raged in the fourteenth century, destroyed, within a period of five years, one fourth of the entire population of Europe. —*Zeimssen's Handbuch.*

WALB ON REUNION OF INTEGUMENT AND CARTILAGE DETACHED FROM THE NOSE BY A RAPIER STROKE.—In this case, communicated at a recent meeting of the Niederrheinische Gesellschaft (reported in the *Berliner Klinische Wochenschrift*, No. 36, 1874), some minutes elapsed between the injury and the application of the detached portion of the nose, since this could not at first be readily found, and had to be cleansed from adherent dirt. This portion had been cut off from the left ala, and consisted at some parts only of skin, and at others of the more superficial layers of the cartilage. At no part of the raw surface thus left on the nose was there an opening into the cavity of the nostrils. The flap was divided by a transverse wound into two halves, which only just hung together. This was well fixed to the nose by seven peripheral sutures, and by a needle and looped suture at its central part. The subsequent treatment consisted in the continuous application of moist and warm dressings. The flap, which at first was pale, gained, in the course of two hours, a dark-blue color, except at some parts at its margin, and over a large island in its centre, where the looped suture had been placed. These parts, however, soon acquired the pink hue of flesh, and retained their vitality. The sutures were removed on the third and fourth days, and healing was perfected without suppuration. —*London Medical Record.*

BOIL-PEST IN TRIPOLI.—During the early part of the present year, a rare and malignant disease made its appearance in a certain district in Tripoli, characterized by the formation of two or three boils in the axilla, or upon the arms, legs or abdomen. Of ten instances of the affection observed by Dr. Reval, seven terminated fatally within twenty-four hours. It was regarded as a significant feature that the disorder was limited to the members of the tribe of *Merdji*, the inhabitants of the surrounding districts enjoying an immunity from the malady, although they maintained uninterrupted communication with this tribe. The authorities at Constantinople appointed a commission to inquire into the causes of this epidemic, and this commission, the President of which was the American consul, Mr. Temen, have recently made an exhaustive report. In accordance with this report, the epidemic in question had its origin in miasmata proceeding from a burial ground in Merdji, where it is the custom to inter the dead in shallow graves scooped out of the sand, the corpses being simply covered with straw. When it rains, these graves are filled with water, which, upon the following day, is rapidly evaporated by the hot sun, and this contributes to the rapid decomposition of the bodies, by means of which the surrounding atmosphere is loaded with putrid emanations. In winter, the graveyard is converted into a small lake, the water from which is used for drinking purposes. It was also shown that all the wells of the place had their uniform source in this "cemetery pond."—*Allgemeine Medicinische Central Zeituug*, Oct. 10, 1874.

THE VALUE TO THE WORKING CLASSES OF REST ON SUNDAY, from a hygienic point of view, is the subject offered at Geneva for a prize essay. The time for the presentation of essays has expired, and the committee find on their hands forty-nine essays, representing at least three thousand pages of manuscript, written in English, French and German. The result will not be announced at present.

FORMULA FOR VAGINAL INJECTION.—

℞. Potassæ chloratis, ʒiv.;
Potassæ permang., gr. x.;
Aquæ destillatæ, ʒxvi. M.

A teacupful morning and evening, with a little warm water added.

THE GALVANO-CAUTERY has recently been used by M. Voltilini for the extraction of a bean which had become fixed in the ear of a child of seven years, at the far end of the meatus auditorius externus. After various means had been tried in vain, at a single *séance* the foreign body was burnt by the galvano-cautery at twenty different points. In a day or two, the remains of the bean, reduced to one half its original size, presented itself at the orifice of the meatus and was easily removed.

CAUTERIZATION OF THE UTERUS.—Dr. Wm. Gillespie directs to take an ordinary sponge tent, coat it with beeswax, and then roll it for some time in powdered nitrate of silver, which will sink into and adhere to the wax. Then, with a suitable speculum, carry the tent through the cervix, and, if desirable, to the fundus, and let it remain twenty-four hours. No remedy in his hands has done more good in a short time in chronic inflammation, enlargement or ulceration of the os and cervix uteri, and he has never known any unpleasant results from its employment.—*American Medical Weekly.*

HOW TO CHOOSE A DOCTOR.—The following advertisement appears in *L'Avenir du Gers:*—A good doctor of medicine is wanted at Vie-Fensenzac (Gers). He must belong to the republican party. This party, which is very numerous, will give him a very fine position. No one need apply who defends the Man of Sedan. Republican journals are requested to repeat this advertisement.—*Edinburgh Medical Journal.*

A VIGOROUS OLD AGE.—Dr. Geo. Cupples, of San Antonio, Texas, has recently removed from the head of a patient ninety-five years of age a fibrous tumor of the size and form of a large onion. The operation was performed without the aid of an anæsthetic. The patient returned to his home in twenty days, well.—*American Medical Weekly.*

MORTALITY IN MASSACHUSETTS.—*Deaths in thirteen Cities and Towns for the week ending November* 28, 1874.

Boston, 149; Worcester, 23; Lowell, 19; Cambridge, 19; Salem, 9; Lawrence, 15; Springfield, 9; Lynn, 9; Fitchburg, 1; Taunton, 5; Newburyport, 0; Somerville, 6; Fall River, 20. Total, 284.

Prevalent Diseases.—Consumption, 62; pneumonia, 33; scarlet fever, 10; typhoid fever, 9; croup, 5; diphtheria, 8.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 5, 135. Males, 59; females, 76. Accident, 3; abscess, 2; apoplexy, 3; inflammation of the bowels, 3; bronchitis, 10; inflammation of the brain, 1; disease of the brain, 2; burned, 2; cancer, 5; cyanosis, 2; consumption, 26; croup, 1; debility, 1; diarrhœa, 4; dropsy, 2; dropsy of the brain, 4; diphtheria, 1; erysipelas, 1; scarlet fever, 7; typhoid fever, 8; disease of the heart, 5; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; congestion of the lungs, 1; inflammation of the lungs, 14; marasmus, 3; measles, 4; neuralgia, 1; old age, 5; pleurisy, 2; premature birth, 2; purpura hæmorrhagica, 1; pelvic cellulitis, 1; suicide, 1; whooping cough, 3.

Under 5 years of age, 40; between 5 and 20 years, 10; between 20 and 40 years, 28; between 40 and 60 years, 31; over 60 years, 26. Born in the United States, 91; Ireland 32; other places, 12.

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Original Communications.

CHANGES IN THE SKIN AND ITS APPENDAGES FOLLOWING LESIONS OF NERVOUS STRUCTURES.

By S. G. WEBBER, M.D., of Boston.

Read before the Boston Society for Medical Observation.

CHANGES of nutrition may occur in the skin, the subcutaneous cellular tissue, the muscles, the bones or the viscera. I have time now only to refer to the skin and the subcutaneous tissue.

Of the changes in the skin, the simplest is a more or less diffused erythema. Couyba reports two cases; in one, the erythema occurred five days, in the other six days, after the injury. He thus describes the eruption in one patient: "There is to be noticed, on the left knee, a red patch, as large as a two-franc piece. Its surface is quite regularly united, and it is not a simple redness, but rather there is a real elevation of the surface, with marked hyperæmia. By passing the fingers from the erythematous patch to the healthy skin, a slight prominence is felt at its edge." Later, a patch of pigment appeared on the thigh and other patches of erythema. The erythematous patch was hyperæsthetic.

I have seen one case where the erythema was very marked, the skin affected being that of the chest and shoulders, and part of the neck and arms. The skin was mottled, and resembled that of a case of scarlatina. There was no hyperæsthesia. I also reported a similar case to this Society, where the eruption followed an injury to the back, with loss of power in the legs, and hyperæsthesia of the parts covered by the eruption.

Couyba compares these erythematous patches to the "glossy skin," described by Paget and Mitchell. It is not the same. The erythema appeared soon after the injury, was elevated in patches, and, at least in many cases, lacked the glossy character.

Another change in the skin following nervous lesions was observed by Paget and Mitchell, and named "glossy skin." It is thus described by Mitchell: "The skin affected in these cases was deep-red or mottled, or red and pale in patches. The epithelium appeared to have been partially lost, so that the cutis was exposed in places. The subcuticular tissues were nearly all shrunken, and, where the palm alone was attacked, the part so diseased seemed to be a little depressed and firmer, and less elastic than common. In the fingers, there were often cracks in the altered skin, and the integuments presented the appearance of being tightly drawn over the subjacent tissues. The surface of all the affected part was glossy and shining, as though it had been skilfully varnished." "In most of them, the part was de-

void of wrinkles, and perfectly free from hair." This state of the skin was always accompanied with burning pain; "in no case did it become visible short of two weeks, but usually it preceded the healing of the wound, and not rarely was to be traced to an outbreak of inflammation involving the wound." The duration varies from a few weeks to several years.

I have not seen any of the more acute cases, but the more chronic cases are not uncommon. Perhaps it is not to be expected that civil practice should give opportunity to see the severer forms which follow gun-shot and surgical lesions.

Pigmentation may occur in consequence of nerve lesion. Seeligmüller* reports the case of a child with lesion of the brachial plexus, where the sympathetic was affected. The eye on the affected side was a clear blue, on the other, a greenish grey. There was, also, atrophy of the face on the affected side.

M. Mayer showed to the Berlin Medical Society† a woman, 27 years old, with atrophy of the left side of the face. The color of the skin on the left side of the face was also changed: a yellow spot in the middle of the forehead, a white spot over the zygomatic process, and a white spot, resembling a cicatrix, on the upper lip. Also, there was a small lock of white hair, and a large number of white eyelashes. She had had epilepsy for six years, and for three years neuralgia of the left trigeminus. At about the same time with the neuralgia, the pigmentation began.

A scaly eruption is often seen in certain nervous affections. In the case I shall report, it accompanied neuralgia. It was preceded by œdema, and consequent swelling of the parts with hyperæsthesia. Fischer has seen this eruption follow the tract of the nerve. Instead of a dry, scaly eruption, this may be moist and vesicular, an eczema, or the vesicles may be larger and the eruption be herpetic, or bullæ may form. All recent authors who have written upon this subject refer to these vesicular and bullous eruptions. Charcot‡ reports a case, in which probable lesion of a branch of the radial nerve was followed by an eruption of bullæ on the dorsum of the hand, of the index, middle and ring finger. The bullæ appeared in the neighborhood of the joints, burst, and quickly healed up.

In the Mémoires de la Société de Biologie for 1865, Charcot, with Cotard, reports a case of cancer of the vertebræ, where the fourth cervical vertebra gave way on the right. There was an eruption of herpetic vesicles over the whole right side of the neck. The ganglia on the roots of the cervical nerves, and the trunk after the union of the roots were swollen and congested. Under the microscope, no change could be seen in the nerve fibres or cells, but only the increased fulness of the bloodvessels.

Ulcerations are seen to follow lesions of nerves, especially near the nails,§ perhaps due to the irritation of the curved nails. Bed-sores may be mentioned in this connection. The ulcerations in the trachea or bronchi and œsophagus, in cases of aneurism of the aorta, may be due to pressure of the aneurism upon the nerves; the recurrent laryngeal and pneumogastric are especially exposed to pressure. In one

* Berliner Klin. Wochenschrift, 1870, page 313.
† Wiener Med. Presse, 13 Feb., 1870, page 149.
‡ Journal de Physiologie, 1859, page 108.
§ Couyba, page 16.

case, I saw an ulceration or local inflammation in the lower part of the peritoneal cavity over the rectum, and could find no cause for it, all the rest of the abdominal cavity being healthy. The patient was paraplegic.

The nails are variously altered. They are more sharply curved transversely, and the ends may curve over the ends of the fingers; they may be thrown up in ridges, become brittle and break easily, may be changed in color, becoming yellowish, and may be retarded in growth, or, for a short time, cease to grow. In two of the cases I report, the nails were very much changed.

The hair may fall off and cease to grow, or be very much dwarfed in its growth, as is seen in the cases of "glossy skin." Or it may be much more luxuriant. A remarkable case of the latter appearance is reported by Dr. Jelly, in the *British Medical Journal* for 1873. A boy, 18 years old, had complete paraplegia from a fall. His hair had grown to an extraordinary length over the whole body, back and front, below the last dorsal vertebra; but was longest from the nates to the middle of the thigh, being so long there that it could be easily curled.

The hair may change color. Dr. Victor Urbantschitsch reports a case* where the hair turned white over the region supplied by the auriculo-temporal branch of the fifth nerve, after an abscess in the ear. An abscess on the other side followed with alopecia.

Again, the hair may only become coarser, and hard and harsh. Anstie mentions these changes of the hair following neuralgia.

The subcutaneous cellular tissue may become œdematous, may be thickened and hardened by interstitial deposits, or abscesses may form and cause much trouble, or there may be atrophy. Œdema is frequently seen in paralyzed limbs, whether the paralysis is central or peripheral. Romberg refers to a case of sciatica, reported by Cotugno, where there was œdema of both legs; the patient died of typhus fever.† Several authors report swellings which resembled abscesses, but which disappeared and returned much too rapidly to be inflammatory. In one case, an incision was made without finding pus. I have seen a patient who reported that he had such swellings, which would appear and attain a large size in a few hours, and would disappear as quickly. I never saw one of them.

In one of the cases to be reported, felons were found on each finger, except the little finger. Fischer‡ mentions such. "Without general disturbance, and without severe pain, the last phalanges of the fingers are swollen like a knob. The swelling remains firm for a while, then softens. Deep abscesses are opened, which penetrate to the bone, and this may be carious or necrosed. These abscesses heal slowly, or not at all, and always cause deformity. On the feet, they sometimes resemble *mal perforant.*" Duplay and Morat§ give an account of the *mal perforant du pied* as a neurosis.

Atrophy of the subcutaneous tissue, in cases of nerve lesion, will account for some cases of atrophy, as, perhaps, in two cases of facial atrophy already referred to, and in other cases, especially some reported by Lande. The diminution in the size of the fingers in one

* Wiener Med. Presse, 1874, page 765.
† Sydenham Society Translation, Vol. I. page 66.
‡ Centralblatt, 1871.
§ Archives Générales, 1873.

case to be reported was probably due chiefly to the atrophy of the subcutaneous tissue.

Nicati refers to atrophy of the capillary network as preceding the atrophy of the connective tissue.

Mitchell reports one case of hypertrophy of connective tissue after wound of nerve.

The secretions of the skin may be altered. The perspiration may almost cease, so that the skin is dry and harsh, or it may be in excess of that on the healthy side, or it may be altered in quality. I have seen one case in which the affected side was bathed in profuse perspiration, large drops standing upon the skin, while the healthy side was comparatively dry. In one of the cases to be reported, the patient mentioned the excess of this secretion on the side which showed the most marked nutritive changes in the skin. Mitchell, Morehouse and Keen mention one case where the sweat was intensely acid, so that an odor of vinegar could be smelt at all times in the neighborhood of the man. In one case, they state the odor of the sweat was disgustingly heavy, and resembled the smells from a bad drain.

The sebaceous secretions are generally not mentioned. Where the skin is very dry, and the hair feels harsh, it may be supposed to be diminished. Lande says it is diminished in cases of facial atrophy.

This is a very brief sketch of the changes in the skin and its appendages following nerve lesion. These changes may result from irritation or from paralysis. From paralysis may follow œdema, with infiltration and induration, perhaps pigmentation, atrophy, and, possibly, simple erythema, though the erythema in the cases which I noticed could not be certainly referred to paralysis Most of the changes, however, must be considered as arising from irritative lesions. This is the case with "glossy skin," with the vesicular eruptions, and, probably, with the lesions of nails and hairs. Bed-sores and other ulcerations must also be referred to irritation. A dry, harsh skin, with absence of sweat and of the sebaceous secretions, is referred, by Mitchell, to paralysis; where the secretions are excessive, to irritation.

We may be able to judge in part from the nature of the nutritive change as to the seat of the nervous lesion. I am not aware that "glossy skin" has been found, except in connection with peripheral lesions. Judging from the few autopsies, it may be safe to say that vesicular eruptions are dependent upon lesion of the spinal ganglia or nerve roots. Charcot, indeed, refers to cases where such eruptions were found in cases of central lesion, but he says those observations are reported in a very summary manner, and he refrains from drawing any deductions from them. On the contrary, he reports such a case, zona on the paralyzed leg in a case of hemiplegia from cerebral softening, occurring at the same time with the hemiplegia. At the autopsy, besides the softening, a branch of a spinal artery, plugged by a clot, was found attached to one of the posterior roots of the chorda equina.

The cases of erythema reported by Couyba, and those which I have seen, followed spinal lesions. Ulcerations, especially bed-sores, are found in central lesions, spinal or cerebral. In spinal lesion, the bed-sore is usually over the sacrum, near the median line. In cerebral lesion, it is more likely to be on the side over the gluteal region.

Attempts have been made to refer these changes, some to the influence of the vaso-motor nerves, some to that of special trophic nerves.

It does not seem at all likely that they all can be dependent upon vaso-motor changes alone. I will not, however, attempt to make any definite division.

The following cases will illustrate some of the cases above described. The second case also presented changes in the muscular and osseous systems.

Case I.—*Fall; Injury to Wrist; Deformity of Hand; Nutritive Changes in Skin and Nails.*

Mr. B. H., seen in June, fell on the ice in the January previous, striking the right hand. There was not much pain from the fall. The hand, so he said, was of the same shape immediately after the fall as now. It was put up in splints, and taken out about four weeks after the accident, and has been stiff since. Now, the metacarpal bones seem to be dislocated to the radial side, the radius and ulnar seem to be unaffected, the carpus is in some way displaced, and the back of the hand is strongly arched. Exactly where and what the injury was, I will not undertake to decide.

The thumb is curved into the palm, the fingers and wrist are much restricted in their motions. The fingers are glossy, the nails narrower, sensation is unimpaired, the hand is somewhat œdematous.

Oct. 15th.—The right hand is less œdematous, the knuckles of the fingers apparently are more swollen; first phalanx of the middle, ring and index, each measure one-eighth of an inch less in circumference than the corresponding parts on the right. The little fingers are equal in size, as are, also, the thumbs. The joints are equal in size on the two hands, except the last phalangeal joints. The skin is whitish, shiny and dry, that on the fingers being more so than that on the hand. The nails are curved laterally, are very narrow, and of different color from the other hand. There is pain nearly all the time in the hand, but not severe. The motions of the wrist are rather freer, of the fingers about the same as in the early summer. Supination causes pain, pronation is less painful. All the fingers, except the thumb and perhaps the index-finger, are numb, both on palmar and dorsal aspect.

Case II.—*Progressive Muscular Atrophy on the Left; Changes of Nutrition in Skin, Cellular Tissue and Bone on the Right.*

Jane McG., aged 27, seen May 4, 1872. Family history shows no special nervous taint. The patient was healthy till she was 17 years old, except relapsing fever when about 11 years old. For the last six years, she has had "inflammatory rheumatism," not a month passing when it did not "pain her," in the right arm, back of the neck, left side, down the back; never in the legs. In the right side of the head, behind the ear, shooting pain and cold chills for about five years. When the "rheumatic" attack in the right arm first appeared, she had been working at her trade as seamstress rather more steadily than usual, and had been at work pretty steadily for five years previously. The pain was at first burning in character, with heat in the arm, without swelling; the pain was very severe in the wrist. She continued to sew, but could not do her work well, and had to give up sometimes on account of pain and weakness. Sometimes, when holding a needle, her fingers became cramped. At the beginning, the thumb and fore-finger pained her; once in a while, there were cramps before the pain. In about three weeks, the pain extended from the hand to the elbow, and in about three months, to the shoulders and neck. Pain has con-

tinued since, but the cramps in the fingers have been present only once in a while.

About seven years ago, she began to have trouble in the left arm. Gradually, a weakness came in the fingers, and they drew up. She could not hold her work; there was pain and heat in the fingers, beginning first in the little finger, then spreading to the other fingers and thumb, then to elbow and shoulders in about nine months. The pain was not severe, but tiresome. About six years ago, she could not raise her hand to her head, and it has been growing worse since. No cramps in left arm. Has had headaches at times, since arms have troubled her; also, has been dizzy, sometimes eyesight dim.

Both pupils acted well; the right was slightly enlarged. The external rectus on the right did not act quite so quickly as the internal; there was no strabismus. The right eye moved less steadily, in following a moving object, than the left. There was no facial paralysis, or numbness of the face. When there is pain in the neck, the head and face flush, and then she cannot see well. Sometimes, however, the face is pale when the pain is present in the neck. The flushing is most marked on the right side of the face, and she sweats more on that side.

The left fingers and hand were much wasted, and the fingers were contracted; the skin over the two distal phalanges was shining and whitish, less so over the first. The contraction of the fingers was gradual during five or six years. Three years ago, there was a swelling in the palm, which was opened, and pus evacuated. The motions of the left arm were much interfered with. She can pronate and supinate the hand; can shut the fingers, if they move together; can only half extend them; cannot spread fingers apart. Motions of thumb are restricted. Motions of wrist are nearly normal, except as to flexion. She can flex the elbow only slightly when the upper arm is abducted. Cannot raise her arm to the horizontal; can abduct and adduct arm, and move it forward and backward.

The supra- and infra-spinatus were much wasted, as were, also, the posterior portion of the deltoid, the pectoralis, biceps, thenar and hypothenar eminences. These, and the flexors of the fingers and interossei, acted poorly to the induced current, better to the galvanic. Snapping the muscles, deltoid, triceps and others, caused fibrillary contractions on the left. The motions of the right hand and arm were good, and about normal in extent; snapping some of the muscles on the right, caused slight fibrillary contractions.

About three years ago, she began to have felons on the right hand, first the middle finger, then the ring, then the index, then the thumb. The little finger was not thus affected, but it was contracted. The fingers were much deformed, the joints being enlarged, the nails misshapen, and the last phalanx of the middle finger was gone. The skin was shining. The sensation was much diminished in the right arm, and on the right side of the neck behind the ear. With the ophthalmoscope, the papillæ were very red, the vessels on entering became fainter, as if covered by a thin film.

It will be noticed that the muscles and motor nerves were chiefly affected on the left; the sensation and skin, with its cellular tissue, and hence the sensitive nerves, mostly on the right.

CASE III.—*Neuralgia, accompanied with Scaly Eruption.*

Miss A. B., aged 42, was first seen about three years ago, and again two years ago, and frequently since. She has been troubled much with neuralgia, dating from unusual excitement and over-exertion, when young. The neuralgic pain has affected different parts of the body, first in the epigastric region, then in the arms, and has been frequently in the head, in the form of hemicrania. Sometimes, the pain extended from the head down the back, and also into the chest. The headaches come on with flashes before the eyes. A small, stationary, black spot was perceived in the right eye, sometimes in the left. This is not seen, except during an attack of headache, or when over-tired. The pain begins just behind the left ear, then goes over the left eye, down over the cheek and nose on the left side, and then becomes general. Then there is a twitching in the left arm and leg, and then on the right side; sometimes this twitching is very strong.

When the neuralgia attacks the arm, there is developed, in a short time, a condition such as I saw in the right arm. There were tender spots over the median and the musculo-spiral nerve above the elbow, also over the median at the bend of the elbow. When the neuralgia first appears, the hand on the affected side swells and is very sensitive, so that it is disagreeable to touch any object. Subsequently, the epidermis scales off, and when I saw her the palm of the right hand, mostly on the ulnar side, was covered with a thick, scaly eruption. This eruption followed the neuralgia, increased with the increase of pain, and diminished when the pain decreased. When the pain ceased, the eruption disappeared.

Progress in Medicine.

REPORT ON SURGERY.

By J. COLLINS WARREN, M.D.

ESMARCH'S "BLOODLESS SURGERY."

PROF. ESMARCH, whose paper on this subject has excited so much interest, finding, on a recent visit to England, that many surgeons were but imperfectly acquainted with his method, that others applied it, but not in the right manner, while others attached no importance to the avoidance of hæmorrhage during an operation, took occasion to read a paper on the value of this method before the Clinical Society of London. The paper was subsequently published in the *British Medical Journal* for Oct. 17, 1874. He finds the influence of this method on the mortality after the greater operations to be decided, especially after amputation of the limbs. He says:—"I lately compared the results obtained in my practice after operations performed bloodlessly, with the recently published results of operations performed by other surgeons, and I found that my results were much better than the best of these, including even those in which the antiseptic method had been strictly followed." Thinking, however, that a more just comparison would be that between cases occurring in his own practice and performed in the same hospital, previous to the application of the bloodless method and afterwards, he gives the statistics of the operations performed by him during the last six years. "Of 88

amputations of the thigh, performed in the first five years, there died 37, or 42· per cent. Of 67 amputations of the leg there died 19, or 28·3 per cent. After the adoption of the bloodless method, there died of 13 amputations of the thigh, only 1; so that the proportion of fatal cases in amputations of the thigh and leg together is brought down from 36 to 8 per cent." He is of the opinion that these statistics, admitting the error which may result from the difference of the numbers compared, afford such striking evidence of the value of bloodless surgery that no one should neglect this method in cases to which it is at all applicable. He thinks it should not be limited to operations on the extremities, but should be extended to other regions with such special modifications as each case may require. He has used it in amputations and excisions of the shoulder joint, in operations on the male genital organs of such an extensive character that they could not have been attempted under former circumstances. In the three hundred cases in which he has used this method, he has met with no evil consequences which could be attributed to it. The longest operation which he performed by this method lasted two hours and a quarter. It was a case of necrosis of both tibiæ, with suppuration of the knee-joint on one side, in which he first removed many pieces of dead bone from one tibia, and then performed resection of the knee-joint, his assistant being at the same time engaged in operating for necrosis on the other limb.

Hernia.

Charles Steel, F.R.C.S., in a paper read before the Bristol and Bath Branch of the British Medical Association, says of Wood's operation for the radical cure of hernia, that, although it is highly successful in its author's hands, it has been frequently attended with fatal results in the practice of other surgeons. He adds, "now that trusses are made so scientifically to fit and support, it is unjustifiable to perform an operation which is attended with much risk of life; at the same time, when good prospect of permanent success, with but little risk of life, is offered by operation, it is right to endeavor to save patients from the life-long trouble of wearing a truss, especially as the existence of a hernia disqualifies men from certain services and duties." He recommends a method of operating which, although thought out by himself, he finds substantially described in Gross's Surgery. It consists in making an incision between, and parallel to, the pillars of the external ring, and dissecting down until the pillars are fairly exposed. Their edges are scraped with a scalpel to roughen them, and they are then brought together by catgut sutures, the wound being treated antiseptically. The writer attaches great importance to the subsequent use of a proper truss to give time for effused lymph to become firmly organized, otherwise there is liability of the hernia to be reproduced at any time within a year of the operation.

Strangulated Hernia.—Dr. Herman Lossen (*Centr. für Chir.* No. 4, 1874; *London Med. Record*, July 8, 1874) gives an account of experiments made by him for the purpose of determining the mechanism of hernial strangulation. He states: "For the reduction of those cases of hernia in which, from inflammatory swelling, a protruding intestine has so much increased in volume that it cannot be pressed back through the same aperture by which it protruded, there exist two

rival theories: Roser's valve theory, and Scarpa and Busch's theory of pinching of the intestinal canal. To decide whether either of these be correct, and if so, which is the more so, I repeated Busch's experiments with fresh pig's gut; but, instead of water, I used melted wax, which, on cooling, became a solid mass. The hernial apertures were represented by holes bored through the lid of a cigar box, through which a finger might pass. The casts of the loops, after removal of the artificial hernial rings, were now embedded in wax of another color, and vertical sections made through them. In the same fashion, a number of loops inflated with air were artificially strangulated and then dried."

The following results are demonstrated by these preparations and experiments:

1. At the moment when the wax, or air, or, in the living gut, the fæcal matter, enters the afferent end, the efferent portion of the gut, at the level of the hernial aperture, is pressed together, and by the constantly increasing pressure is finally completely closed.

2. This being accomplished, no pressure, however great, coming from above, will re-open the distal end of the gut.

3. The pinching *(Abknickung)* of the intestine, which is principally referred to the opposed folds of mesentery, is not the cause, but the consequence, of this closure.

4. The afferent end is never closed, which appears to contradict the hydrostatic law that in a closed space lateral pressure acts equally in all directions, and perpendicularly to the surface. According to this law, the pressure in a strangulated loop must exist up to the level of the hernial ring; and above it, in the afferent piece of intestine, a diminution or increase of pressure must manifest itself equally in all directions.

This may be demonstrated with extreme facility by means of a manometer attached to the afferent end of the artificially incarcerated loop of intestine. It may be shown in this manner, beyond all doubt, that in the living intestine the whole column of excrement presses upon the contents of the bowel in the strangulated loop. Therefore the pressure on the sides of the loop will depend upon the height and length of this column, and upon the resistance the intestine offers to the pushing back of the fæcal contents. The height of this column may become considerable by reason of the long continuance of the strangulation. During this time the pressure constantly augments, but it possibly may be reduced by severe fæcal vomiting. The impediments arising from friction are the most important. These, from the very outset, are in inverse proportion to the transverse section of the hernial aperture; they depend further upon the viscosity of the contents of the bowel, upon the number of 'pinchings' of the intestine occasioned by the gradual swelling of the convolutions of the bowel above, and also upon the contractile force of the pylorus and of the ileo-cæcal valve. They increase with the increasing peristaltic motion and swelling of the intestinal coverings, in consequence of which the afferent end may ultimately assume the minimum transverse section.

The author's observations and experiments show how great the lateral pressure upon the loop may become. It is manifest that the maximum of lateral pressure immediately above the hernial aperture must be attained at the time when that pressure equals the sum of the

resistance due to impediments in the whole upper tract of the bowel. From this moment must commence a backward motion of the contents of the bowel, the fluid particles flowing back in the axis of the canal, whilst along the walls the peristaltic influence will urge the matter forward. In the strangulated loop these movements are reversed, and maintain the equipoise. Under these circumstances, the pressure does not further increase.

In the living subject, the resistance is much greater than in the dead, in consequence of the peristaltic action, the viscid nature of the bowel contents, and the smaller size of the hernial aperture.

The manometer shows that all species of direct pressure upon the tumor increases the tension, and aggravates rather than improves the condition of affairs. Neither Roser's nor Busch's theory explains this. It is the lateral pressure at the orifice of the sac which alone prevents reposition.

A rational taxis then will renounce attempting any alteration at the afferent end. The efferent end is the one to be opened. "This is to be effected," Dr. Lossen says, "as I am in a position by the manometric experiment to prove, by pressing the loop of intestine towards the side of the afferent end. The efferent end is by this means opened, and the loop partially empties itself, then a slight pressure upon the hernial swelling is sufficient to effect reduction."

Seeing that no practical diagnostic means are known whereby it can be accurately ascertained at what side, the right or left, the upper or lower, the efferent end may lie, the author recommends that sideward movements of the hernial swelling be carried circularly round. If this end be not attainable, an external herniotomy may be made, and then similar manipulations again tried before incision of the ring.

From the preceding it is also clear that, in the internal treatment, laxatives must not be administered, and that large doses of opium are to be commended immediately after the occurrence of strangulation. The peristaltic action will be thereby lessened, and thus one provocative of lateral pressure eliminated.

On the Action of the Muscles in Strangulated Hernia.—Motte, having made numerous observations and experiments on living men and animals, comes to the following conclusions (*Bulletin de l'Académie Royale de Méd. de Belgique*, 1874, No. 6; *Centr. für Chir.*, No. 32):

A hernia can be produced without any participation whatever of the muscles; for example, of the diaphragm.

The muscles of the abdominal walls can present more or less of an obstacle to the reduction of a hernia, and increase the strangulation. This is not, however, usually the case, and there is never any condition of permanent spasm. Of the different positions which are recommended to relax the muscles, and to allow the hernial aperture to be opened to its fullest extent, there is not a single one which effects this with certainty in all cases.

In performing taxis, the operator should not adhere to any one method, but if the reduction is difficult, should try various positions.

Tetanus.

The treatment of tetanus by the injection of chloral hydrate into the veins has given rise to a good deal of discussion. Even those opposed to it allow that the remedy has the effect of relieving the symptoms. Rest and sleep are ensured, and ability on the part of the patient to

receive nourishment. The injection of chloral into the veins is said to be dangerous, inasmuch as it causes coagulation of the blood; it is, moreover, unnecessary, as the drug can be introduced into the stomach through a tube.

It is maintained that chloral does not cure the disease, as only chronic cases have been cited, and these always get well of themselves. Verneuil, however, contends that this division is a purely artificial one, as it is impossible to establish a differential diagnosis at the outset of the disease. The dose is large—six to ten grammes, in double the quantity of water—given until all symptoms yield. A reference to this subject is to be found in the *Centralblatt*, No. 45, 1874.

Anæsthesia.

Dr. Jacob Helberg, of Christiania (*Berliner Klinische Wochenschrift*, No. 36, 1874), proposes a substitute for the present method of relieving difficult or impeded respiration during anæsthesia. The use of the gag to pry open the mouth, and of the forceps to drag forward the tongue, is frequently attended with some injury to the mouth, of a permanent character, or, at least, may be followed by a sense of discomfort, lasting for some days. His procedure consists, simply, in dragging forward the lower jaw-bone, and is described by him as follows: "Standing behind the recumbent patient, the two thumbs of the operator are placed upon the symphysis of the lower jaw, while the index fingers are hooked behind the ascending ramus of the jaw. The bone is then pulled forcibly forward (anatomically). The force should be applied as if the operator intended to lift the patient up by his jaw-bone. During anæsthesia, the head of the bone slips forward with a perceptible jerk, and the whole lower jaw overlaps the upper jaw. As soon as this is accomplished, which is easily done in children, a deep, full inspiration follows, immediately, and continues as long as the bone is held in position." The author supposes that the epiglottis is thus lifted off the rima glottidis.

A Cruel Joke.—A surgeon living in a colliery district near Thornley was recently made the subject of a very cruel joke, says the *Pall Mall Gazette*. Word was brought to him that a terrible accident had occurred at a colliery in the neighborhood, and he was urged to lose no time in going there with instruments, splints, lint and bandages. He hurried off accordingly, most elaborately prepared, and, the news having spread, he was followed with no less haste by numbers of the villagers. An accident had really happened near the pit's mouth. In the high gale which did so much mischief a few days ago, a travelling waxwork show which had been exhibited to the miners was blown over, and the surgeon found that the patients for whom he had run himself out of breath were life-like figures of Mary Ann Cotton, who had lost one of her arms; Tropmann, the French murderer, whose skull had been fractured; and several other inmates of the "chamber of horrors," who had broken legs or arms, or received injuries more or less serious. The surgeon's disappointment and disgust deserve heartfelt sympathy. On public as well as on private grounds, too, these unseemly jokes should be discouraged. It would be exceedingly convenient if, in colliery explosions and railway accidents, lay figures could be blown up or smashed in the place of the actual sufferers. As, however, science has not hitherto perfected any such system of vicarious sacrifice, very awkward consequences may ensue if practical jokers permit themselves to trifle too often with medical men, and thus lead them to stay away when they are really wanted.—*Medical Press and Circular.*

Reports of Medical Societies.

MIDDLESEX EAST DISTRICT MEDICAL SOCIETY. AZEL AMES, JR., M.D., SECRETARY.

The Society met in Reading, Nov. 18th, the President, Dr. S. W. Abbott, in the chair.

Complete Laceration of the Perineum and Sphincter Ani, complicated with Incontinence of Urine. Recovery. Dr. Francis F. Brown reported the case.

Mrs. L., aged about twenty-five, a woman of good health, was taken in her first labor, April 24, 1874, about 10 P.M., membranes rupturing at that time. Saw her for the first time at 9 P.M., the 25th. Found os uteri slightly dilated; external parts rigid and sensitive, as they were throughout the labor. She had suffered much pain during the whole twenty-four hours. Thus she lingered till noon of the 26th, when the os was two-thirds dilated and dilatable. At half past twelve, April 26th, thirty-nine hours after the commencement of labor, I applied Hodge's long forceps, telling the nurse and husband that there would be laceration and they must not blame me for any unfortunate result. I had twelve ounces of sulphuric ether with me. It took considerable of it to bring her under its influence, and I soon found that more would be needed. It was sent for; but, before its arrival, the woman was delivered of a living child, one hour and three-quarters after commencement of the inhalation. In consequence of the sparing use of the ether, the patient became unruly and hard to manage. Once the husband lifted her with a jerk, and laid her down suddenly, so as to bring from me an involuntary exclamation of fear of injury.* Considering the high position of the child and the rigidity of the external parts, the forceps were introduced with less difficulty than I expected.† The head presented; vertex to the right sacro-iliac synchondrosis, rotating so as to bring the occiput to the posterior fourchette, and the forehead under the pubes. The perineum was lacerated during the passage of the head. The placenta was soon delivered, and the rent carefully examined. It extended entirely through the sphincter ani, and one half an inch into the rectum. The wound was carefully closed with three deep quilled silk sutures, one of which passed through the sphincter muscle. Remembering the success of the elder Dr. Stevens, in a similar case, I hoped for a like good result. The urine had been passed by the patient before etherization; it was now drawn with the catheter, looking turbid, as I recollected afterward, but whether with blood, in the hurry of the moment was not noted. Pulse 120, immediately after delivery; 110, three hours afterwards. She passed a comfortable night under opium. The next morning, I introduced the catheter and instructed the nurse, who had been accustomed to use it, to do it in the evening. What was my horror the next (second) morning to learn that the urine had flowed involuntarily from my patient twice during the night. Here was a pretty fix. A vesico-vaginal fistula, as I thought, in addition to complete laceration of the perineum! For weeks or months this delicate,

* I cannot help thinking that the incontinence of urine resulted from injury produced at this moment.

† The blades being accurately applied to the sides of the head, reaching to the middle of each cheek, as was plain after delivery.

petted lady must live, befouled and excoriated by her own excrements, to be relieved only by a surgical operation which would necessitate her removal to a distant hospital! Such was the dismal future that rose before me at that moment.

For the next two weeks, gentlemen, there were at least two miserable people in Reading, this patient and her doctor. I need not describe her condition, lying on her back, constantly bathed and excoriated by decomposing urine, from which no skill or care could protect her; happy in this, however, that she was ignorant of the real extent of her injury.

The sutures were removed on Saturday, the seventh day after labor. As the wound had been constantly wet with urine, I expected to find no union, and, according to my notes and my recollection, there was none. The most unexpected and fortunate recovery which followed makes me doubtful of the correctness of my observation. I did not separate nor draw upon the lips of the wound, which were in apposition, wishing to avoid possibility of harm, so there may have been slight adhesion; but I set it down at the time, in my mind and notes, that there was none. On the eleventh day, the bowels, which had been kept, all this time, quiet by opium, were freely moved by citrate of magnesia; there was not the slightest control over the fæces. The next day, twelfth after confinement, on account of uneasiness in the parts, I used the syringe to clean the lower end of the bowel, being careful to insert and direct the pipe well back towards the coccyx, away from the wound. The water flowed from the vagina and the perineal rent, the anterior part of it at any rate, as fast as pumped into the rectum.

May 9th.—Two days afterwards, the fourteenth day after the confinement, the bowels moved spontaneously. There was no control over their motions as yet. But now comes a pleasanter part of my story. A fortnight had now passed as described. The urine, with the exception of the first twenty-four or thirty hours, had been constantly dribbling away, as fast as it entered the bladder. Now, it was noticed that the flow was not constant, but sometimes, at first during sleep, ceased; at first, half an hour, then an hour, then two hours; and about May 14th, nineteenth day after labor, complete control over the bladder was regained.

At the same date, examination showed, to my astonishment, that the perineum was healing. Opium was continued till the 16th, twenty-first day after labor, when a dejection, after Seidlitz powder, proved that my patient had recovered control over her bowels also.

On May 20th, twenty-fourth day after labor, a more thorough examination being made, previous ones being incomplete for fear of injury, revealed a solid perineum about three-fourths of an inch broad and one-half of an inch thick, and a small recto-vaginal fistula. An enema into the rectum would partly flow from the vagina, but solid fæces never passed this way after this date. Within a month, that is by June 20th, this opening *had entirely closed*. Since July she has enjoyed good health. Has slight uneasiness after urinating, and sometimes darting pains, which seem, as near as I can make out, to proceed from the seat of the wound. There is no bearing down or dragging sensation, or feeling of loss of support, "as if every thing is tumbling out."

Now, as to the incontinence of urine, I am inclined to the opinion

that it was due to a vesico-vaginal fistula, although no examination was made to settle the point. The extreme soreness of the parts, and the fear of disturbing the perineal rent, with my belief that nothing was to be gained for my patient by an immediate examination, led me to defer it from day to day till her recovery from this difficulty made it unnecessary. Might not this trouble have been due to paralysis of the sphincter of the bladder, rather than to a fistula? Her spontaneous recovery may make this seem probable. On the other hand, vesico-vaginal fistulæ are occasionally known to heal spontaneously. Two members of our Society, Drs. S. W. Abbott, of Wakefield, and Wm. F. Stevens, of Stoneham, have each had such a case. Dr. Abbott will report to you his case himself. In Dr. Stevens's patient, there was an opening into the urethra or bladder, probably the latter, for there was entire incontinence of urine, following rapid delivery without instruments. The fistula was probably the result of a rent, and not a slough, for the incontinence followed soon after the birth of the child. Bearing on this point are cases of chronic perforating ulcer of the bladder cured by Sir James Y. Simpson by putting the viscus into a state of physiological rest by means of an artificial vesico-vaginal fistula, effected by introducing a grooved staff along the urethra, and slitting up the posterior fourth of the canal and about one inch of the posterior wall of the bladder. There was no difficulty in getting the fistula to close after the ulcer had healed; the difficulty was to get it to remain open long enough.*

Dr. Emmet, of New York, performs the same operation with similar results; all of which seems to show that however difficult it may be to heal a fistula in which there is a loss of substance from a slough, a clean cut readily closes. Paralysis of the bladder after labor, whatever we might expect from reasoning on it, usually results, not in incontinence of urine, but in retention.

Here there was no retention after the first thirty hours, but the opposite condition, and the bladder was constantly empty. Most accidents of this kind are supposed to be due to long pressure of the head on the bladder and urethra after the descent of the head has begun, causing a slough which separates in from four days to two or three weeks. In this case the head had not begun to descend when the forceps were applied; and I think the injury may have been caused by one of the blades making a small cut, not quite through some part of the bladder, during some of the movements of the patient when partially under the influence of ether, as before mentioned.†

In regard to injuries to the perineum, Professor T. G. Thomas, of New York, says:‡ "It may be affirmed, in a general way, that any laceration which does not entirely sever the sphincter ani may heal without surgical treatment, and that none which converts the two passages into one will do so. Even when the rupture has been complete, it has been asserted that spontaneous cure has taken place, but such reports need confirmation. Peu once affirmed that he had seen a woman thus injured, and who passed her fæces involuntarily, entirely recover. De la Motte declares that thirty years after-

* See Braithwaite, July, 1871, page 224.

† No attempt was made to keep a catheter in the bladder, under the (perhaps mistaken) idea that the irritation of its presence would counteract the good it might do. In another such case I would try it.

‡ Diseases of Women, page 115.

wards he met and examined Peu's patient in Normandy, and found that no recovery had occurred." In my patient, every fibre of the sphincter was torn through, converting the two passages into one. This has completely healed as, I have described. Whether the cure was spontaneous, or whether there was some union at the time of the removal of the sutures which I overlooked, I leave you to judge. Spontaneous or not, union under such extremely unfavorable circumstances was entirely as unexpected as it was fortunate.

Treatment was mainly by opium, rest and non-interference of the parts—I should have liked to add, cleanliness, but that was out of the question.

1st. Opium was well borne; I have never seen it act more happily, constipating the bowels, giving the patient quiet and sleep, and benumbing a keen sense of misery. She was kept well under its influence for three weeks, and partially so a while longer. There was no trouble in leaving it off.

2d. Rest. For nearly three weeks she was lifted from one side of the bed to the other, not exerting herself in the least, not even moving her legs, nor separating her knees.

3d. The injured parts were interfered with as little as possible; no examination of the leak from the bladder was made for fear of disturbance of any healing which might possibly be taking place.

Allow me a few words more in justification of myself. Perhaps some of you may think that in relating this case I have been exposing my own blundering and lack of judgment and skill. If so, I hope it may be of possible benefit to some who may escape my mistakes by knowing them. In the first place, perhaps I was wrong in not having council. It would have saved me some anxiety afterwards to feel that other shoulders were helping to bear the load of responsibility, but at the time I did not think it was necessary, nor do I now even. The case did not seem more difficult than many which I had conducted to a successful determination, and had the ether not given out just in the nick of time, would not have been.

Secondly, were the forceps applied at the proper time? I had remained and watched the woman all the forenoon. She had been thirty-nine hours in labor, the external parts rigid, os dilating slowly; she had lost two nights' sleep, and I feared exhaustion, and determined therefore to apply the forceps as soon as I could, and did so. If I had a like case again, I should try chloral; Dr. Playfair in the *Lancet* for February, 1874, calls attention to its value in the first stage of labor, where the os uteri is rigid and dilating slowly, with much pain. Fifteen grains repeated two or three times at intervals of twenty minutes or half an hour, diminishes the pain, dilates the os, and hastens labor. My experience in a few cases is confirmatory of this testimony.

Thirdly, as to the laceration of the perineum, I expected it, and was so sure of it that I told the nurse and husband, before applying the forceps, that it was inevitable — a remark I had never made before—but I expected it to stop at the sphincter ani. I have of late years been inclined to think that good forceps, properly applied, diminish rather than increase the danger of laceration, an essential point being, during delivery of the head, to keep the handles well forward between the thighs, so as to press the head snugly against

the pubes. In this case, the forehead came under the pubes, and we all know the disadvantage of that. I am not wholly sure but that I may not have carried the handles as far forward as I ought to have done. I thought at the time, I did, however, and you must recollect that I had not full control of the patient just at this time, owing to want of sufficient ether.

This want, gentlemen, allow me to repeat, was the main cause of all my troubles, and of the misery and narrow escape of my poor patient. It was not the difficulty of applying the forceps, nor extracting the child, although that was not an easy task, but my inability to control the movements of the woman that led to the injuries I have detailed. Had it not been for this, the only probable harm would have been an incomplete perineal laceration, which, with sutures and a week's rest, would have entirely healed. The moral is obvious.

It may be of interest to add that this lady has been a subject of vaginismus, not excessive, but to such a degree that copulation was by no means a pleasure. From the time of her recovery, till lately, this sensitiveness has been absent, but at last accounts seemed to be returning.

Boston Medical and Surgical Journal.

Boston: Thursday, December 17, 1874.

We publish elsewhere a letter from Dr. H. I. Bowditch, in which he criticizes our course towards the American Medical Association. A most careful and dispassionate consideration of the matter has failed to show us reason for changing our views. We are perfectly ready to overlook the insult which the Association was induced to offer to the Massachusetts Medical Society, as the former has been the sole sufferer in consequence of it; but we do not admit that the resolutions passed in 1872 compel us to resume friendly relations, unless we are so inclined. The essence of an apology is an acknowledgment of wrong, and there is no word of this in the resolutions.

Our main objection is that the men who govern the Association and attend its meetings are far from fair representatives of the profession; that, consequently, the proceedings lack the dignity and discretion, and the papers, for the most part, the merit, that should characterize such a body. We cordially admit the former merits and services of the Association, as well as the high standing and character of its former leaders and supporters; but it has wofully degenerated, and Dr. Bowditch does not show the contrary.

There is no doubt that it is desirable to have some good organization to represent the entire country, and if a feasible method of reforming the present one can be devised, we will support it most heartily,

and we shall be glad of suggestions on the subject. We regret to differ from our esteemed correspondent, but we think it our duty to protest against the suggestion implied in the last sentence of his letter: "Upon the action of the District Societies, and not upon the Councillors, *whose power is simply advisory*, the whole matter depends." We can conceive no course more destructive to the good feeling at home and respectability abroad of our Society, than one creating dissentions between the District Societies and the Councillors. Such a course is further unnecessary, for every member has a voice in the election of the Councillors, and, if any of the latter do not represent the views of their constituents, they can, and should, be dropped at the end of their year of service. The Councillors are, for the most part, men of mature years and of high professional standing, to whom the interests of the District Societies may be safely entrusted. If this is not to be done, the very existence of the Council is an absurdity.

The great feature of the past week, in Boston, has been the trial and conviction of Jesse H. Pomeroy, the boy murderer. The case is a very remarkable one and likely to be quoted as a precedent in future trials, when the defence is based on insanity. Jesse H. Pomeroy, not yet sixteen years of age, from his earliest youth has shown the greatest tendency towards cruelty to children and animals; to witness suffering appears to have been his delight. He was convicted of torturing several children smaller than himself, and, some two or three years ago, was sent to the Reform School for the remainder of his minority. Last February he was released, through the efforts of one of our "philanthropists," whose name has been very carefully hidden from public execration. In April, he enticed a little boy, Horace H. Millen, four years old, to a secluded spot, and murdered him after preliminary tortures too horrible to detail. He endeavored to conceal the body, but it was soon found, and, certain circumstances pointing to him, he at first denied but afterwards admitted the guilt, and confessed, also, another murder.

The evidence, apart from his confession, was conclusive, and the only possible defence was insanity. Drs. Tyler and Walker were the experts for the defence, and Dr. Choate, of New York, for the government, in rebuttal. Dr. Tyler testified that the prisoner had some symptoms of epilepsy, and that the apparent want of motive for his crimes implied mental disorder. On cross-examination, he stated that the gratification of a love for cruelty might be looked upon as a motive, and that the precautions which the boy had uniformly taken to prevent discovery were consistent with sanity and good mental capacity. Dr. Walker was less guarded, and testified that the boy

was insane at the time of the commission of the crime, but on cross-examination was apparently unable to give any reason for his views beyond the great atrocity of the offence. Dr. Choate testified that the boy was of good ability and aware that in committing his crimes he was doing wrong. He did not believe in an irresistible impulse to such crime. He thought the prisoner's mind peculiar in proneness to certain forms of sin, and in weakness to resist. On cross-examination, the witness stated that he thought the peculiarity was moral and not intellectual. He believed the prisoner sane at the time of the crime. After five hours' discussion, the jury returned a verdict of guilty of murder in the first degree, with a recommendation to mercy.

We are equally pleased and surprised at the result, for there are not many juries that would have performed their painful duty so faithfully, and have not been influenced by the attempt to establish insanity. The plea of insanity rested entirely on the difficulty of supposing that merely to gratify a taste for cruelty, a boy should not hesitate to commit such crimes. Now there is no doubt that the tastes of the boy are morbid, but they can hardly be called unnatural except in degree, as a pleasure in tormenting is very common among boys, and in this case it was merely exaggerated. The temptation to commit crime was great, the power to resist, feeble, but there is no reason to doubt that it was sufficient. The verdict is eminently just, and there remains only the dread penalty to be paid. The sooner it is done, the better. We have always favored the strict execution of the laws; but, in this case, there is more than punishment and example to be considered. It is necessary to protect the public against this monster. There is no place but the grave from which silly and reckless sentimentalists will be unable to free him. The very atrocity of his crime will make him interesting to these dreamers, whose philanthropy does not extend to his victims and their heart-broken families.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

REPORT OF OPERATIONS.

Service of Drs. Bigelow and Cabot. Saturday, December 5, 1874.

SINCE the last report (Nov. 14th), the following cases have been operated upon without ether:—

1. Lithotrity (2 *séances*).
2. Abscess, aspirated.
3. Abscess, aspirated.
4. Wen (of Scalp).

Ether was used in the following cases:—

5. Fistula Ani.
6. Fistula Ani.

7. Fissure of Anus and Fibroid Polypus. Rupture of Sphincter Ani and Excision of Polypus.
8. Hare-lip.
9. Club-foot. Tenotomy of Tibialis Anticus and Plantar Fascia.
10. Club-foot. Tenotomy of Tendo-Achillis.
11. Caries of Ulna.
12. Caries of Femur.
13. Necrosis of Ilium.
14. Warty Growth of Labium.
15. Wen of Back.
16. Nævus of Lip.
17. Cancer of Breast.
18. Tumor of Jaw.
19. Enchondromatous Tumor of Metatarsal Bone.
20. Abscess of Back.
21. Abscess, Palmar.
22. Abscess of Neck.
23. Stricture of Urethra; Divulsion by Voillemier's instrument.
24. Stricture of Urethra; " " " "
25. Sinus of Stump.
26. Lupus of Nose.
27. Felon.
28. Felon.
29. Felon; Amputation of Finger.
30. Felon; Amputation of Finger.
31. Anchylosis of Arm; old Dislocation at Elbow; Flexion.
32. Phlegmonous Erysipelas.

Lithotrity.—This patient had been the subject of frequent renal calculus, with subsequent concretion in the bladder, without pain or inflammation, so that there was no occasion for ether. Dr. Bigelow remarked that the simple method of catching the stone in a bladder, moderately distended by water, was in depressing the posterior wall of the bladder into the hollow of the sacrum of the recumbent patient, leaving the female blade of the lithotrite in that position, while the male blade was withdrawn an inch or more. The stone, if loose, as it usually is, then rolls into the instrument. In fact, a stone may be caught and crushed in this way when so small that it is difficult to discover it with a sound. A lithotrite is thus a good sound. The practical termination of the work of a lithotrite is when the female blade is packed above the surface with fine debris. It then becomes difficult to catch fragments which escape from this smooth surface. The instrument must be withdrawn, emptied, and introduced again. Time is thus lost, and the urethra distended and irritated. A lithotrite is needed with a lateral motion of the extremity of the male blade, upon its stalk as a centre, to clear the instrument while in the bladder. Such a contrivance should not impair its strength, and should be subject to guides upon the handle, which should keep the blades parallel while used for crushing, and during withdrawal.

Phlegmonous Erysipelas.—A feeble, middle-aged man had been subjected to the application of a large number of sinapisms for supposed thoracic difficulty. He entered the house for a reddened patch, of the size of two or three hands, extending along the side of the ribs. In two days, this had been developed up and down the side of the body, and now extended from near the axilla to the crest of the ilium. Yet at only one point was there any fluctuation. This was opened, and a small quantity of pus escaped, but the cellular tissue was observed to be in a sloughy condition. The incision was prolonged, and the reddened integument was stripped, with the finger, from this slough so far as it could be discovered, and quite to its edges, leaving a wound, somewhat wider than the hand, extending from the axilla to the ilium. The patient has been well stimulated, and is now, at the end of a fortnight, doing well.

Fistula in Ano.—One of the operations for fistula was instructive; the patient presented himself with an ischio-rectal cavity, from which a large

slough had been detached. The cavity would have contained a hen's egg, which might have been easily lifted out through the patulous orifice. Dr. Bigelow remarked, in looking for a cause for this abscess, that he could find no aperture at its upper part that would admit a probe, but that as the regular position for such communication with the rectum was just above the margin of the anus, he would look there for it. After some examination, the point of the probe passed through a minute sinus, leading to the verge of the anus, where it was felt beneath the mucous membrane. Further cautious exploration discovered an aperture in this membrane, and the probe being passed out at the anus, was followed by a director, and the tissues were divided. Stress was laid upon the importance of discovering these original orifices into the rectum, and it was stated that fifteen minutes might be advantageously consumed, if needed in such exploration, which really constitutes the operation, as the subsequent incision is momentary. A probe often readily passes through the sinus in the sphincter, and is felt beneath the mucous membrane in the anus when a smaller probe is needed to discover the orifice in the latter. If the sinus is not thus traced, it may re-induce the disease. A recent fistula may heal, after operation, in a fortnight; an old one may not heal in years. In such a case, it may be desirable to excise a part of the infiltrated walls, although even this may avail little.

H. H. A. Beach, M.D., *Surgeon to Out-patients.*

BOSTON CITY HOSPITAL.

Service of Drs. Cheever and Thorndike.

Tuesday and Friday, Dec. 8th, and 11th, 1874, the surgical operations were as follows:—

1. Tumor of Face.
2. Cancer of Breast.
3. Mammary Abscess.
4. Epithelioma of Nose.
5. Epithelioma of Lip.
6. Necrosis of Tibia from Compound Fracture.
7. Amputation of the Thigh.
8. Necrosis of Radius.
9. Operation for a Deformity of the Lip.

1. This tumor was a recurring myxoma, of six months' growth, in a young woman, 18 years old. It was situated beneath the mucous membrane of the left cheek, and extended up under the zygomatic arch. It was removed from inside the mouth by a crucial incision, and consisted of about four drachms of soft, tenacious, gelatinous substance, which the microscope showed to be a series of fine, delicate, wavy fibres, rounded, mucous-like corpuscles and fat. The first growth was removed by Dr. Cheever, two years ago, in the same way, and was of the same nature as the present one. Dr. Cheever remarked that this is not a malignant growth, like cancer, for, although it has a tendency to return, it does not involve the neighboring structures, nor does it infect the constitution. This specimen comes under the class of hyaline myxoma. According to Bryant, "in the soft myxomas, where the cell-element predominates, the risks of a return are great."

3. An enormous abcess of the breast, of five weeks' duration, in a woman, 45 years old. She has had no children for seven years, and knows of no local injury. A free incision gave exit to a pint and a half of thick, brownish pus. The breast was strapped and supported by a sling.

4. Epithelial disease of the nose, of seven years' growth, in a man, 65 years old. It began as a small crack or abrasion, "where a new pair of brass-bowed spectacles had rested," and in spite of caustics, and various other methods of treatment, it had become an extensive fungous mass, involving the tip, all the lower part of the left, and half of the right, side of the nose, nearly as high as the lower lid. No glandular complication. The growth was entirely removed by the knife; it was necessary to remove a great part

of the nose, but none of the bones. A section of this growth under the microscope showed the whorls, or nests of epithelium-like cells, characteristic of epithelioma. Dr. Thorndike proposes to remedy the deformity by a plastic operation, should the parts get into a favorable condition.

7. Mr. J., aged 25, was run over by the steam cars, October 19th, 1874. His left hand and leg were crushed, and he got a compound fracture of the frontal bone over the outer portion of the left orbit, a piece of the outer table, an inch and a half in diameter, being depressed. Dr. Fifield amputated the forearm at the middle third, and the leg at the knee-joint, by anterior and posterior flaps. Esmarch's bandage was used in both operations, and the loss of blood was slight.

Besides having extensive suppuration, all over the left side of the head, necrosis and great prostration, he had, also, sloughing of the leg-flaps, so that about four inches of the lower end of the femur were exposed. The lower end of the stump is now covered with a large mass of granulations, the bone being nearly closed in, but nature is evidently unequal to the task of healing so large a surface.

Dr. Thorndike amputated the thigh at the middle third, by the circular method, using the rubber bandage and cord, and losing not over an ounce of blood.

8. A boy, 12 years of age, was injured by a sled on the right forearm, three years ago; this was soon followed by periostitis and suppuration. The joints were not implicated, and the hand was in a good condition, the fingers being flexible. Dr. Cheever enlarged the openings, and removed a piece of the shaft of the radius five inches long; this being all that was loose, or ready to be removed, without too much violence. Esmarch's bloodless method was employed, the hand and arm being tightly wound with a rubber bandage. But, instead of the rubber-tubing, a Petit's tourniquet and roller-pad were applied over the brachial vessels. Dr. Cheever preferred this, in the delicate arm of a child, to the risk of injuring the brachial nerves by tight strangulation with the rubber-tubing.

The hæmorrhage was easily controlled by a compress and bandage, after the tourniquet was removed, the operation itself being perfectly bloodless.

9. For a history of this case, see this JOURNAL, April 2d, and June 11th, 1874. The patient is a young woman, 18 years of age, who had a cleft, extending through the soft, and three-fourths of the hard, palate. The former was closed by Dr. Thorndike, in April, in the usual way, and the latter in June, by Fergusson's method. With the exception of a small pinhole at the junction of the hard and soft palate, both operations were successful. The roof of her mouth is broad and well shaped, and the voice has considerably improved. The patient has an unsightly congenital scar and notch on her upper lip, on the same side with the cleft in the palate. It looks like a bad result of a hare-lip operation, but she has never had a hare-lip, and, therefore, no operation for one. Dr. Thorndike cut out the scar, pared the sides of the notch, leaving one side with a flap and the other without, and very carefully apposed the parts with wire and silk sutures. The deformity was completely removed.

GEO. W. GAY, M.D.

Correspondence.

AMERICAN MEDICAL ASSOCIATION.

MESSRS. EDITORS,—Permit me to say a few words in support of the above-named, unfortunate Association. I use the epithet because, at the present time, if we may judge from your JOURNAL and from the action of the Councillors of the Massachusetts Medical Society, it seems to have few friends in Massachusetts.

I was not one of the original founders of it, but I have watched, somewhat closely, its course from its birth.

I also recollect, before its birth, how entirely separated from each other were State Medical Societies, where any existed. The same assertion may be made of individuals of the profession in different parts of the Union. We did not know each other as we do now. The Association arose under the inspiration of one man, and it has been sustained more by his influence than by that of any other individual. I allude to the able, energetic and accomplished physician, N. S. Davis, of Chicago. At first, his labor met with secret or open opposition from many of the older members of the profession in various parts of the country, especially in this State. Massachusetts is only repeating her own earlier history by the position she now takes. If our State had followed the counsel of the late Dr. Enoch Hale, and of some of his compeers, she would have sent no delegates to the earlier meetings. That policy, which would have separated Massachusetts from the Medical Union of these States, was fortunately rejected. And yet your JOURNAL and the Councillors of the State would virtually assume the same position at the present time. You say, in one editorial, that the Society is "rotten," and in your last issue you claim, among the meritorious acts of your editorial career, that you have not lavished "facile eulogy" upon the American Medical Association. Now I am willing to grant that the Association has done a few things of which every one of us disapproves; that, under the influence of some enthusiasts, it has passed votes, which I sincerely wish it had never passed; votes which I thought at that time, and now, were improper and unjust. I grant that meetings have been, at times, disorderly, and that a selfishness worthy of the wildest political gathering has been displayed. Nay, more, of late, all of us have seen, with deep regret, creeping into the Society some of the rather low methods pursued in political meetings. Men have *seemed* to be voting for themselves, and they have, at least, somewhat openly expressed their claims for office. I grant that, on the part of some few persons, the meetings have also, at times, been disgraced by a drunken rowdyism, unworthy of gentlemen. Give me leave to say that there never was a worse meeting in this last particular than that which occurred in Boston in 1865. That riotous gathering on one of the islands of the harbor, and while under the patronage of the city, was led on by the members of the profession belonging to *Massachusetts!* Granting all these drawbacks, I deny that the Association is "rotten," or that it is unworthy of support.

The Association has existed one quarter of a century. Under the leadership of its distinguished originator, it has grown up strongly, and has done infinite good to the profession throughout the country. It has accommodated itself to the changes which experience has from time to time shown to be necessary in its organization. It has published articles, some of which are valuable, if a great many are not so. It has healthfully stimulated the profession in all parts of our country, and States where no Medical Societies had previously existed have been, by its example and by its precepts, led to form such State Societies. It has adopted a Code of Medical Ethics for the profession of the country. Above all, it has been the means of bringing together some of the best of our profession, men whom we had heard about, but never would have met save at the meetings of this Association, now so scouted at. Some of my sweetest friendships, I have gained only at these meetings; or, if I did not first become acquainted with gentlemen at the meetings, our friendship was cemented at them. I shall never forget that I owe to that held in 1849, at Baltimore, a long and warm friendship with the late Dr. P. C. Gaillard, of South Carolina, than whom I never knew a man nobler in character, or a more thoroughly accomplished gentleman and physician. Nor do I forget that to the American Medical Association I also owe my acquaintance with that wise man and surgeon, the late Dr. Knight, of Connecticut. As a presiding officer, calm, prompt in his decisions; and how friendly and gentle in private intercourse! Really, I cannot understand why men of Massachusetts dislike the American Medical Association.

I have heard but two reasons, viz., first, that the Association has been governed by a set of inferior men, or by men who go to the meetings for their own selfish ends. If this be so, I do not know it. If you look at the

list of Presidents, you will find two from Boston, both of them above reproach in reference to their professional standing, and, in every respect, proper representatives of the Medical Profession of the country. I allude to the late eminent surgeon, Dr. J. C. Warren, and our present living associate, Dr. D. H. Storer. Among our Presidents, certainly, the names of Chapman, of Philadelphia, Stevens, of New York, Warren, of Boston, Mussey, of Cincinnati, Moultrie, of Charleston, Wellford, of Richmond, Knight and Ives, of New Haven, Pitcher, of Detroit, Miller, of Louisville, Pope, of St. Louis, March, of Albany, all of them among the great dead of our profession, and those of others now living, but whose names shall not be mentioned by me, some of whom are among the best of our profession, and the peers of any in any country, prove that, if the Association has been sinking year after year into the hands of an inferior class, it has generally selected no inferior men as its file-leaders. The second objection, and, in the minds of some men of Massachusetts, the stronger objection of the two, is that the Association, at its meeting in Washington, in 1870, grossly insulted the Massachusetts Medical Society. I grant the fact. It was indecorous, on the part of the Association, to exclude delegates from any sovereign State from its meetings under such a flimsy pretence as it excluded for a time those from Massachusetts. The resolution, it will be remembered, however, was carried through the meeting by the energy of one or two *Massachusetts* men.

But, granting that an insult was then offered, was not an ample apology tendered unanimously at the meeting in 1872, at Philadelphia? I submit that, after an insult has been offered and ample reparation made, it is the part of gentlemen to resume at least the semblance of friendly relations.

I cannot forbear, in this connection, remarking that, possibly, the sting of that really insolent rebuke from the American Medical Association was the stimulus that finally goaded our Massachusetts Society to the expulsion of the homœopaths from membership, and that at an expense of several thousand dollars. Moreover, I may add that if the action of the American Medical Association, in the matter of homœopathy, contributed in the least to this end, *so desirable in the eyes of many*, they ought rather to sustain than to try to destroy it, on that account.

In conclusion, I wish to express the hope that the several District Societies of this State will send delegates to the next meeting of the American Medical Association, which is to be holden on the first Tuesday of May next, and during the three following days, at Louisville, Ky. Let each society send its *best men*. If that were always done throughout the country, we should hear but little complaint of the American Medical Association. Upon the action of the District Societies, and not upon the Councillors, *whose power is simply advisory*, the whole matter depends.

Respectfully, Yours,

HENRY I. BOWDITCH.

Boston, Dec. 9, 1874.

Medical Miscellany.

OXALIC ACID is highly extolled by Prof. Ceuni, Prof. Giurley and Dr. Taccani as a local application to the throat in cases of diphtheria.

DR. BAJARDI, an Italian anatomist, has found the superior thyroid artery arising from the common carotid in 37 out of 131 cases. Quain found this anomaly only 41 times in 292 cases.

DR. JAMES H. MCDONALD, of Newtonville, appointed Asst.-Surgeon 9th Regt. Inf., M.V.M., has passed a successful examination before the Board of Medical Officers M.V.M.

FOUR CHILDREN, of ages varying from ten months to two years, have recently died at Romford, England, from the effect of "teething powders," administered without medical advice.

TREATMENT OF EPISTAXIS.—Dr. W. I. Wilson, U. S. A., reports the successful employment, in two cases of severe epistaxis, of a solution of the liquor ferri persulphatis, one part to three of water, introduced into the nostril in the form of spray, by means of the ether-spray apparatus. The bleeding was checked in a few seconds.—*Philadelphia Medical Times.*

IRON IN LARGE DOSES.—At an inquest recently held in Manchester England, on the body of a shoemaker, who was an inmate of the Prestwich Lunatic Asylum, and who died suddenly, the *post-mortem* examination showed that the stomach contained one pound ten ounces of nails, some an inch and a half long, several pieces of iron half an inch square, and an awl, without a handle. His death resulted from peritonitis.

MRS. WINSLOW'S SOOTHING SYRUP.—Dr. R. L. Harlow recently read a paper before the Androscoggin Medical Association, in which he justly denounces this poisonous mixture, that has not only killed its hundreds, but is spoiling the health of thousands of children. He states that the amount sold yearly contains over fourteen million grains of morphia, which amount is administered to infants without professional advice.

EPILEPSY CURED BY EXCISION OF A NEUROMA.—At a recent meeting of the Clinical Society of London, Mr. Barwell related an interesting case of a soldier, aged sixty, who had lost an arm in India, in 1846, two years after which epilepsy set in. On examining the stump, a neuroma was found, any pressure on which produced a fit. These fits became at length so numerous, that Mr. Barwell was induced to cut down upon and remove the neuroma. This operation was performed August 7th, and at last accounts (October 24th) the man had had no more epileptic fits, and was much improved in appearance and intellect.

RUPTURE OF THE BLADDER.—A boy, aged eleven years, entered Roosevelt Hospital, July 8th, having been injured July 2d, by receiving a kick in the perineum. There was not much pain complained of at the time, but some hours after he was unable to pass his water, though he did so subsequent to the injury. In the course of a few days the urine became bloody and later purulent, and the patient succumbed August 11th, having manifested symptoms of pelvic peritonitis, diarrhœa and pleurisy. At the autopsy, a rupture was found at the side of the bladder, near the neck, large enough to pass a lead pencil through. The urethra was also ruptured. That the patient did not die shortly after the injury is to be accounted for mainly by the reason that the urine did not escape into the peritoneum.—*New York Medical Journal*, Dec., 1874.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities and Towns for the week ending December 5*, 1874.

Boston, 135; Worcester, 13; Lowell, 18; Milford, 3; Chelsea, 5; Salem, 11; Lawrence, 19; Springfield, 1; Lynn, 9; Gloucester, 4; Fitchburg, 5; Newburyport, 5; Fall River, 16; Haverhill, 4; Holyoke, 7. Total, 255.

Prevalent Diseases.—Consumption, 45; pneumonia, 24; scarlet fever, 15; typhoid fever, 11; croup, 5; diphtheria, 5; measles, 6.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 12, 133. Males, 54; females, 79. Accident, 4; apoplexy, 1; disease of the bladder, 1; inflammation of the brain, 1; disease of the brain, 2; bronchitis, 5; cancer, 1; consumption, 28; convulsions, 2; croup, 1; debility, 3; diarrhœa, 3; dropsy, 1; dropsy of the brain, 4; diabetes, 1; scarlet fever, 5; typhoid fever, 1; gastritis, 2; disease of the heart, 6; hernia, 1; hæmorrhage, 1; disease of the hip, 1, homicide, 2; intemperance, 1; disease of the kidneys, 1; congestion of the lungs, 2; inflammation of the lungs, 15; marasmus, 4; measles, 3; metritis, 1; old age, 7; paralysis, 4; pleurisy, 1; premature birth, 2; peritonitis, 1; pyemia, 1; puerperal disease, 2; purpura hæmorrhagica, 2; rheumatism, 2; scrofula, 1; tabes mesenterica, 2; tumor, 2; ulcers, 1; unknown, 1.

Under 5 years of age, 39; between 5 and 20 years, 11; between 20 and 40 years, 37; between 40 and 60 years, 20; over 60 years, 26. Born in the United States, 82; Ireland 36; other places, 15.

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ILLUSTRATIVE CASES IN ELECTRO-SURGERY.

By W. F. HUTCHINSON, M.D., of Providence, R. I.

BETWEEN a bloodless operation and bloodless operating there is a wide difference—a missing link, and one which to-day remains as much an unsolved problem as the Darwinian ultimatum. It is true that Esmarch, with his elastic bandage, has succeeded in preventing the loss of blood during the comparatively small period of the operation occupied by the passage of the knife through the tissues and the ligation of vessels; but there remains a secondary stage, the major part, so far as time goes, of the whole, wherein capillary hæmorrhage is not controlled at all—that stage usually occupied in allowing the surface to glaze over, preparatory to closing the flaps, supposing an amputation referred to. The long and steady compression to which superficial vessels have been subjected seems to destroy their power of contractility, and they remain patulous and oozing for some time; so that, as I have lately been informed by a prominent surgeon, there is, upon the average, and counting all steps of the operation, as much loss of blood as when only the ordinary tourniquet is employed. This is certainly bloodless operating, but by no means a bloodless operation, the latter term belonging only to electro-surgery. Here, in no step, nor in any stage of any operation, is there necessity for the loss of one drop of blood, nor for any of the prostration dependent upon such drain. It is my purpose, in the following record of cases, to cite one which will fully illustrate the value of galvano-surgery, where a bloodless operation is imperatively called for. Aside from the absence of depletion, there is another advantage in electrical operating—that of avoidance of nerve shock. Whether the current used compensates for the vital force expended in meeting the shock, whether a certain portion of it prevents any loss of nervous force by its inherent similitude and rapid transference thereto, or however else it acts, the fact remains—that there is actually no nerve-shock, no systemic prostration, after even major operations conducted in this way. It is difficult to over-estimate the immense advantage which these two points give to electro-surgery over general surgery, and there can be no doubt, all things being equal, which plan would be preferred by the intelligent surgeon. Unfortunately, all things are not equal. The necessary apparatus is cumbersome, excessively liable to get out of order, costly, and requires an adept, or rather two adepts, to handle it. It cannot

be readily transported from place to place, and requires an elaborate preparation before it is ready for a large operation, involving a thorough knowledge of electro-physics, as well as of mechanics. Until other instruments are devised besides those now in use, but a few special operations can be performed, and the value of galvano-surgery is, as yet, exceedingly limited in its boundaries. Still, there are certain operations, demanding conservation of blood and nerve power, wherein the new surgical agent very beautifully displays its powers, and makes good its claim to a position in the armamentarium of the modern surgeon. Notably among these, are removals of morbid growths from the larynx, pharynx, vagina and cervix uteri; and there are few, who, having witnessed the case with which these operations can be done, where no hæmorrhage obstructs a view of the parts as the division of tissue progresses, will be apt to return to the old plan when the new can be made available.

No man living has had greater experience in these operations than Prof. Byrne, of the Long Island College Hospital, and his testimony is to the same end.

Case I.—About July 1st, of the present year, I was consulted by Dr. A. W. Nelson, of New London, Connecticut, in regard to a case which he represented as fungus hæmatodes of the left breast, in a lady, about seventy years of age, who was still tolerably strong. Dr. Nelson had already removed the growth twice by the ordinary operation, taking care to allow the wound to heal by granulation the second time. Both excisions were followed by rapid growth of the fungus, which assumed its former dimensions in from four to eight weeks, and he was desirous of having it treated with the galvano-cautery. Mrs. P. came to Providence for an examination, and, although opinions differed as to the character of the tumor, there could be no dispute as to the necessity for its immediate removal, as the surface of the mass was becoming putrescent, and septic poisoning was imminent. It was justly considered that her age and the fact that she had lost considerable blood during the last operation precluded another resort to the knife, and it was decided to operate with the battery, all the consulting surgeons assenting.

On the 23d of July, Mrs. P. presented herself, accompanied by her physician, Dr. Nelson, and Surgeon Hasson, U.S.A., of Fort Trumbull. There were also present Drs. Robert Millar, W. H. H. Traner, and my assistant, Dr. Browning. The patient was etherized, and the growth, distinctly pediculated and streaming with fœtid pus, was looped with No. 26 platinum wire, attached to Middledorpf's galvano-ecraseur. Sufficient battery power was turned on to heat the loop to a dull redness, it was slowly tightened, and, in ten minutes, the mass was removed, without the loss of one drop of blood. It weighed one pound and a quarter. Afterward, the base, which looked like the greyish eschar formed by nitric acid, was thoroughly electrolyzed with a 32-cell battery and needles, enough tissue being removed to insure a healthy border to the wound, the second stage of the operation lasting eighteen minutes. Patient recovered well from the anæsthetic, and complained of neither pain nor distress, evincing lively satisfaction in knowing that the growth was removed.

She walked to her carriage, and to her chamber, on the second floor, upon arriving at her boarding-house. There was no prostration, and

she was not confined to her bed a single day. The wound progressed finely towards healing for several days, giving her but little pain or trouble until, upon the sixteenth, I discovered the commencement of the return of the growth, thus verifying Dr. Nelson's original diagnosis, in which I had concurred. Owing to her absence from home (she resided in Hartford, Conn.), and her great desire to be once more with her friends, added to the certainty of an unfavorable termination, further operative interference was discouraged, and she left town on the 8th of August, at which time the fungus was about the size of an English walnut, and rapidly growing. Mrs. P. lived until October, the 25th, at which time she passed away, painlessly and resigned. Here, then, was a case where an ordinary surgical operation was unadvisable for the third time, not only on account of the determined opposition of the friends of the patient, but because of her advanced age, her feebleness, and the natural disinclination of her skilful medical attendant to repeat a procedure which had twice signally failed. In my own mind, there was no doubt that it would fail again; but at least one of the consulting surgeons doubted its malignant character, and it was possible, at all events, to prolong life. This was done, as the result shows, for a very considerable time, at least three months, and thus much was gained.

Case II.—On the 20th of June, Dr. Geo. E. Mason, a well-known and prominent surgeon of this State, called at my office with a patient of his, named Michael M., aged 27 years, who was suffering with a tumor, for which he supposed an electrolytic operation would afford the only probability of a cure. It was an aneurismal varix, situated upon the right lower jaw, the size of a large orange, extending from the symphysis to the ramus in an antero-posterior line, and involving the whole of the cheek above, with a portion of the antero-superior cervical triangle. It was congenital, and, beyond the unsightly appearance which it gave to his countenance, had troubled him but little, until within a few months, when it commenced rapidly to enlarge, and cause extreme pain, neuralgic in character.

In appearance, the tumor was purplish, the skin extremely tense, and readily emptied by steady pressure, which, however, caused great anguish. From its rapid increase in size, and from the fact that the skin covering it was becoming thinner from internal pressure, operative interference was evidently urgently demanded. And equally evident was it that no ordinary plan would suffice. Every branch of the facial artery communicated directly with the cavity of the tumor, as well as every other vessel of this extremely vascular region. Compression, from reasons above mentioned, was out of the question, and ligation of any vessel equally so. It seemed to be a question between an electrolytic operation and the uncertain plan of injecting into the tumor powerful astringents, both having, for an objective end, the formation of a clot which should afterwards be gradually absorbed. The advantages of electrolysis over injection were many and strong. Thus, no foreign material was to be introduced, possibly to be passed into the circulation, producing systemic effects; no danger was to be incurred from the possible admission of air into a vein, several of which opened directly into the varix; time was not to be lost in experimenting with various astringents, in order that the least harmful might be selected, and, finally, even so skilful a surgeon as Dr. Mason

hesitated to undertake the dubious operation, when electro-surgery was so accessible and so sure.

Accordingly, on the 1st of July, I operated as follows, with the following gentlemen present, viz.: Drs. Mason, Millar, Mitchell, Carr, O'Leary, Perrin, Browning, and two medical students. The patient, seated in an operating chair, was etherized, and six needles, connected with the positive pole of a 32-cell battery, were introduced into the base of the tumor, forming a circle in such wise that the points were distant from each other about one inch in the centre, and the integument protected from galvanic action by the insulating material covering the needles up to half an inch from the end. The negative pole was attached to a sponge-covered carbon-point, and, being applied over the surface of the tumor, the current was turned on from six cells, and rapidly increased to ten. Bubbles of hydrogen began to escape beside the needles, and the tumor to enlarge from the evolution of gas, when I discovered that the negative pole had, in the few seconds already passed, vesicated the skin deeply. It was at once removed, and a large, pear-shaped needle substituted, which was introduced through the skin so as to leave as much distance as possible between the poles. Electrolysis at once recommenced, and in twelve minutes was complete, every portion of the sac being filled with a firm clot, and the surface changed to a livid white. Patient rallied well from the ether, and went home in the horse car, taking with him a simple, evaporating lotion, to keep the parts cool. Two days afterwards, the portion of skin which was blistered began to slough off, but did not in any way interfere with general absorption, which proceeded steadily until the fourth week, when it was complete, and the tumor had entirely disappeared. There is, at the present time, no trace of it left, the small needle-scars being concealed by the beard. During the entire operation, not one drop of blood was lost, and the patient felt, the same evening, as he expressed it, "first class."

These two cases have been selected from a rather large list in my case-book, as representative ones in many respects. They are of equal magnitude with any which I have been able to find any account of, either in Europe or America, and illustrate, very well indeed, the principles of bloodless operations. The unfortunate *dénoument* in the first case was inevitable in any event, and it is believed was delayed some time by employing this form of procedure; and no one can doubt that the brilliant success in the second was directly and solely attributable to the agent used, and, but for the objections raised before, no other form of operative interference would be justifiable in any form of disease where the dangers of depletion and nerve shock would be an important factor in deciding a surgeon against an operation. The instruments used in electro-surgery are so rapidly being improved as to render it a matter of some difficulty and no small expense to keep even with the onward march; but one day, there will be in the hands of every surgeon, a form of battery, at once portable, certain and cheap, and then it will be a matter of wonder that we lost so many of our patients in the days gone by.

THE DUTIES AND RELATIONS OF DISTRICT MEDICAL SOCIETIES.*

By Ephraim Cutter, M.D., of Woburn.

Gentlemen: At your last meeting I failed to present you with a promised paper, on account of sickness in my family; and now I do not wish to crave further indulgence on account of an accident, which has caused me a six weeks' confinement to bed. I rather would seize this opportunity (as I cannot personally be present with you) to make my communication in the form of a letter, which allows me to say some things in a more direct, plain, and familiar style, than in a didactic paper. The topic to which I beg leave to call your attention, is that of "labor fields" for our society; or, to put it more broadly:

Medical Society Labor Fields.

It has always seemed to me that our medical societies possess a vast amount of latent power which by management might be utilized in beneficent work. That is, there are a large number of members whose powers are not brought out. They are integral parts, and when inactive, the whole organization does not perform its possible work. There is always a generous contribution when every one puts in something, and the effect upon those interested is invigorating and inspiring. This duty of contribution from each one has, when performed, a very salutary effect upon the contributor. He feels a greater interest in the object. He looks more closely and carefully to the contributions of the others. Oftentimes he finds a missing link to complete the chain of his own observation, by which he arrives exactly at the truth. But it is my purpose to point out certain fields in which medical societies may labor, the method of labor, and the manner in which they can offer an opportunity to each member to take a part, leaving the question of utility to be settled as we go along.

The first field of labor to which I would call your attention, is that of reports of *practical experience*. Not that this field is not already occupied, but that it is not occupied fully and thoroughly. The idea is to have an exercise in medical meetings which corresponds to that of the "experience" meetings of some religious denominations. Each member is expected to relate some item of his personal experience in the practice of medicine. He alone is to be the authority of his statement. Time limited to five minutes or less for each reporter. No discussion allowed. No strained or classical language required. Only the simple terms of short sentences, such as pass between friends alone. Let individuality come out. Let each reporter be kept strictly within his allotted time, and let the next one commence immediately after the previous one has ceased to speak. When this course is pursued, it is astonishing to see how each one is quickened into mental activity, as the short, plain and practical statements are made. Great interest is excited as the conversation goes on, by sudden and startling turns coming up unexpectedly from quarters where the field was supposed to be barren.

This plan of "experience meeting" has been tried in therapeutics in the late meeting of the American Medical Association. It was a

* A letter to the Middlesex East District Medical Society, November 4, 1874.

success. It produced an animated scene of interest. The amount of experience unfolded, the depth of penetration, the breadth of observation, and above all the practical value of the statements elicited, were very gratifying to the proposer. The idea of hundreds of learned and skilful physicians spending time and money to go hundreds, and in some instances thousands, of miles, to meet in convention for comparison and exchange of ideas, and then spend their time in discussion of questions of medical police, by-laws and constitutions and junketings, is rather humiliating—even more so, when we reflect what a rich and full treasury of items of information they might have left behind them if they would each of them have contributed three-minute statements of truthful, honest, personal experience which they deemed of the most value to themselves.

It will be noticed that this field of labor is made very simple, made up of anything of personal experiences. If the *esprit de corps* of the society would bear it, it might advantageously be confined to one subject, given out before hand, if *every member would report upon it. The reporting of each member constitutes the main interest in the exercise. It is not the subject.* How such subjects might thus profitably be investigated, may be illustrated by referring to the history of the therapeutical investigations of your Society into the use of *veratrum viride*, some years ago. There is no doubt that this work was well done and well received, as its results are regarded as authoritative by scientific men. To take a particular case:—Suppose that the Massachusetts Medical Society in each district should investigate the therapeutical properties of ozone, every member testing it, and reporting at a district meeting. The secretary could combine the verbal reports in one, digesting and classifying the results, and then sending them to the secretary of the parent body, who would combine these in a compact, decisive report, to be read at the annual meeting. Would not such reports be valuable, and sought after?

I suppose some would say that this is impracticable, because physicians will not have confidence in each other, because of jealousy or contempt. Not all would be honest enough to tell the truth, or to believe that what was reported was true. If this be so, what a sorry figure does our noble profession present? I deny it.

Another field of labor is, the *supply of educated nurses.* It is a matter of congratulation that one of your number has initiated a movement which will give a supply of nurses educated at the Massachusetts General Hospital, but the supply will be so limited that, practically, it will not meet the demand for skilled laborers as nurses. It seems as if every member of our organization should take a deep interest in a matter which so vitally concerns his professional success. The whole labor of the physician can be annulled by bad nursing. How would it answer for each member to furnish to the secretary a list of nurses, and let him embody the record into one, have them printed, and distributed to each member? Then might not there be a committee of the Society—say the Censors—who should personally, or otherwise, examine into the qualifications of the nurses, and those who were found to be qualified should be so designated on the list, and should be preferred in selection and recommendation? In other words, have a sort of procedure like that pursued by Harvard College in their examination of women. There might be some one appointed to give

occasional instruction to persons desiring to become nurses, just as was done at the beginning of our late war. The mere fact that physicians were giving their attention to this subject would have a salutary influence upon the nurses, and would enhance the reputation of the profession.

The wonderful success attending the daily reports of the meteorological condition of stations scattered over the country, is a good example of what might be done in medical societies in the *reporting of the prevalence of disease and its probabilities*. Reports of the state of the weather, laborious and careful ones too, have been made for many years, but, being isolated and non-contemporaneous, they have practically amounted to nothing but examples of patient, faithful industry. The systematic contemporaneous observations of a large number of coöperative observers of the weather has produced the wonderful prediction of the weather for the United States, so that "Old Probabilities" is consulted by the physician to see whether he shall ride in an open or covered carriage; and, on the other hand, the system that makes "Old Prob." possible is being adopted by other nations. Is it too much to hope that if medical societies everywhere should honestly adopt a similar field of labor in relation to epidemics and other diseases, the laws of their visitation and spreading would be ascertained, so that the predictions in relation to them would be as valuable and interesting to physicians as the weather reports are now to physicists?

In this field also comes the reporting of cases of disease, not deaths only. Suppose this society had continued the reports of cases of zymotic diseases, so auspiciously kept up for seven years. Suppose, also, that other medical organizations had done the same. Who doubts that the information thus obtained would now be regarded as the most valuable and authoritative? This system requires that each member report his cases annually. Thus he makes a contribution which is an integral part of the whole. His contribution is just as valuable, necessary and important as that of any one else. There is a sort of true republican equality which does away with invidious distinctions and exalts all into a uniform character of excellence. I know of no exercise which so much includes and compasses the true, legitimate and healthful exercise of the powers and faculties of medical societies as this very reporting of statistics of cases of disease.

Another field of labor is the *suppression of quackery* by proper legislation in this State. "It is done in other States, why not in this?" was pertinently asked by a physician the other day. It is not enough to fulminate ridicule and exposure in our annual ante-prandial discourses. It is not enough to write boldly about it. The disease of false medicine is too old, too chronic, and too pleasurable to be kept in check (it can never be eradicated as long as human nature exists as it is) by single, isolated, uncombined efforts. It requires coöperation, contemporaneous, wide spread as the evil, and equally persistent. Our medical society might discuss the subject, every member taking part and declaring some opinion. A committee might be chosen to investigate further and report some method of action. When this is submitted it should be discussed, every member bearing some of the labor of digesting and correcting. The final adoption should be perfectly unanimous. A statement of this action should be sent to each sister

society, inviting attention and coöperation in a similar manner. Suppose they discuss and adopt the proposition, and when the time for the annual meeting of the parent body comes, all unite in presenting the matter for adoption. Can any one doubt that our laws would be favorably modified in relation to quackery, or any other thing, when all the influence, direct and indirect, of twelve or thirteen hundred educated medical men all over the State is combined and exerted at one time unanimously in relation to it?

Besides this, the laws would be executed. For with such a grand, united influence, public opinion would be healthily formed and so strongly set that our courts would not dare to allow the law to become a dead letter, as unfortunately so many of our written laws already are. But whose fault is it, if not in the state of public opinion and the causes that make it?

Directly in connection with this is the making the employment of *medical and surgical experts* by plaintiff and defendant illegal, and the substitution of experts appointed by the courts. It is well known that, in medico-legal trials, scientific testimony is made to appear irrelevant or apparently contradictory by the present plan. Doctor is pitted against doctor, surgeon against surgeon, chemist against chemist. One may be a thorough scientific master, the other an ignorant tyro with a degree. The former may make an assertion based upon long, intimate and accurate personal observation, and the latter deny it *in toto*, his assurance being inversely as to actual knowledge; and yet, in the jury-room, the unblushing ignorance of the latter may outweigh the modest knowledge of the other. Then it is human nature for each to defend the side upon which each is retained. They may both be *truly* experts—as a child would say—still the scientific conflict is not apt to be creditable to our art, and the end of justice is liable to be defeated. To bring the case nearer home, any one of your number may be threatened (some already *are)* with suits for malpractice. Under the present system, is the outlook comfortable of having justice administered aright? The plaintiff summons so-called doctors, irregular ones it may be, who swear in the strongest terms, as *experts*, that the defendant has culpably done a great wrong, for which he should be mulcted in heavy amounts. The defendant's experts testify to the contrary, on the law and the evidence. How can a jury be expected to render a righteous verdict? How much better it would be to have a scientific, impartial commission, appointed by the court, to decide the technical points! Would not the defendant feel better? Would there be drawn down on the profession the present reproach as to their experts? In my opinion, the matter should be taken up like that suggested in relation to quackery. It would not be long before a change would be effected, removing, in a measure, the unpleasantness of the present situation.

Patronage of Original Investigation into the Causes of Disease.—In this country, patronage is not extended to original investigators as it is in the old; our government does not liberally reward inventors and discoverers by monetary grants as does the English. If Jenner had been born, and conducted his researches, in the United States, it is very doubtful whether he would have received the liberal fortune that was voted him by government. The action of Congress, in relation to the discovery of anæsthesia, clearly shows how unwilling our rulers

and legislators are to award money, titles or distinction upon any benefactors of the human race in the medical line. It is so in relation to other things. Not long ago, the English government awarded £20,000 to an inventor of a brake for locomotives. If this individual had made this improvement in this country, he would have looked in vain to Congress for $100,000.

Now, the question is, do not original investigators into the causes of disease need encouragement or patronage? I think that they do need it. They have to possess a good deal of enthusiasm and sacrifice, to follow out the difficult paths of research. It is to be supposed that they have the gifts for such work, or their inclinations would not have led them into it. In the absorption of their powers in their explorations, their time and talents are taken from the routine business of their profession. By this, their support is cut off, for investigators are not always rich. Or, if they practise their profession for support, just so much vital force and energy is abstracted from the pursuit of their investigations; so that the cause of science is a loser, and with it humanity.

Well does Hamerton ask, where would have been the splendid researches and additions to knowledge made by Michael Faraday, had not a sinecure position been conferred upon him, which gave him a liberal support, and rescued him from the drudgery of poverty?

But suppose our laborer has overcome the obstacles of poverty and distraction, and comes forward to announce his discovery, how is he apt to be received? It seems to me that his situation is often very much that of an Indian captive running the gauntlet. One doctor hits him a clip with saying, "Oh, that's an old thing revamped!" Another assaults him with, "That's exploded years ago!" Another says, "Simpson and I tried it, and it failed!" Another, "That's my invention!" And so on through the double line of hitters. Sometimes, ridicule is thrown at him. Sometimes, one, more hardy and self-possessed, will, with a learned article, explode the poor fellow, as with a mine of gunpowder, and the rest, seeing so much of an exhibition, unthinkingly encourage the exploder, and the discoverer feels ashamed, and retires with disgust.

As the writer looks at the matter, it stands thus: Every medical man has received an inheritance from the past. He is bound to transmit the legacy unimpaired, and even increased, if it is possible, from opportunities, gifts, &c. If this is true of single medical men, it is more true of them in an associated capacity. Hence, I infer that whenever a proper person brings a communication which he thinks is original and valuable, the medical body, or public, before which he makes the presentation, should have the courtesy to receive the offering in the spirit in which it is offered. Give it a respectful consideration, and be very careful how criticism is offered, lest the sensitive nature of the discoverer be injured. Suppose the communication should prove to be different from what the offerer thought; instead of ridicule, or rough putting aside, he should be praised for his intention, and requested to try again, and bring another offering. It often happens that inventions and discoveries are made contemporaneously in two or more places without knowledge of each other; but this should not invalidate the claims of either. The society should show a friendly spirit, speak a word of encouragement, use its *influence* to stimulate

the pioneer in his future labors. This is what I mean by *patronage*, and I think that this kind of patronage would do no harm, but much good. If such a spirit of patronage were cultivated generally in our sister societies, it would hasten the day of the discovery of typhoid fever germs, of smallpox, rheumatism, scarlatina, measles, and like diseases. In the establishment of the Army Medical Museum, and its publications, our government has shown a remarkable example of healthy, fruitful, natural patronage. May we see more such!

We wish also that medical societies would discuss the question, whether physicians of advancing age, wealthy, enjoying a large and long practical experience, should not relinquish their practice to some extent, for the purpose of giving their attention to original investigation (like the late Dr. Perkins, of Newburyport,) either as laborers, or patrons of laborers. They would be expected to choose such topics as by experience they were convinced needed investigation the most. Ripe in judgment, trained in observation, warped not by prejudice or self-interest, rich in resources of accumulated knowledge, looking into eternity, how gloriously could such a body of laborers terminate their earthly career, and to how great advantage to mankind!

The common spectacle of such physicians spending their wasting physical strength in the hard routine of practice, when it is not necessary for support, and simply for occupation, is, I think, a melancholy one, when there is such a noble field unoccupied, in which there is room for the largest exercise of their powers in a healthful, invigorating, and delightful manner. Let us who are young prepare our minds, that when our physical strength declines (allowing that we shall have the pecuniary ability), we may devote ourselves to such work, which will be our best monument after we have passed away.

The last field that I shall allude to, is that of labor in *public hygiene and medicine*. I hope the time will come when it will be a frequent occurrence to have questions brought by municipalities to medical societies, as I understand was done in Albany lately — the city referring the question of the purity of a water supply from a certain source to the Albany Medical Society, and abiding by its decision. This is one of the aptest things of the day. It was honorable all around. It was satisfactory. I have not the least doubt that medical societies could decide questions of sewerage, drainage, clean streets, clean household surroundings, slaughter-houses, and rendering establishments, if applied to by the proper authorities; and that cities and towns would be great gainers in health and longevity, if they would advise with, and act upon the suggestion of, the local medical societies. I think, also, that if architects would consult the same bodies in relation to the location of dwellings, public buildings, and manufacturing establishments, in relation to ventilation, heating apparatus, and arrangement of apartments in buildings, there would be a great improvement in the housing of men and animals, and a staying of death from impure air. Further, I believe that architectural perfection will not come until this mutual consultation is had.

I think, also, that medical societies might occasionally instruct the public as to articles of diet. For instance, suppose they examine the subject of the premature decay of teeth, in children, and find as I have done, that one cause of it is the deficiency of mineral matter in

flour (wheat). I had the "peerless flour" analyzed, and it was found that it contained only 0.55 per cent. of ash, when whole wheat grain yields 1.65 to 3.1 per cent.; that flour has only one third to one sixth the proper amount of mineral matter to make teeth with; that a dentist finding his first child's dentition late, irregular, and prematurely decaying, placed his wife during her second pregnancy upon the use of whole grain flour, and when proper, placed the child upon the same diet; that this change of diet was followed by a regular normal dentition with undecayed teeth; suppose, I say, that this experience should be confirmed by the observations of the society, till they were satisfied of its truth, and then the public should be warned of the exclusive use of flour by an official announcement of the society; would not a great blessing be conferred upon the rising generation, some of whom are toothless, and worse than toothless prematurely, simply from too much flour?

How long would it be before Dr. Toner's admirable idea of public free camping grounds and parks for the sick and poor would be carried out, if every medical society adopted it, and recommended it?

So of free public baths. Indeed there are no worthy sanitary measures which might not be adopted, were physicians generally united in their favor.

The State Board of Health in Massachusetts is eminently the work field of physicians. I hope that every medical society will sustain it to the utmost.

Let us come up to our work like men, leaving behind, as philanthropists, all jealousies, strifes, and want of harmony. Let us by cöoperation, action, labor in the fields set before us. There shall we bring out our latent powers for good, and cause streams of blessings to flow upon our race, which shall not cease to flow till time ends. We will go down to our graves with the satisfaction that we have done what we could.

Woburn, Nov. 4, 1873.

Strangulated Hernia successfully treated by Pneumatic Aspirator.—An engine-driver, aged 50, had suffered for three months from inguino-scrotal hernia. He was first seen by Dr. Nairnes, on the night of 8th October, at 11.30, when the tumor in the scrotum was found to be tender on pressure, the patient suffering intense pain, and harassed with frequent vomiting, flatulence and general uneasiness. All efforts at reduction failed. The attempts to restore the intestine by means of taxis were renewed the following morning, the patient being put under the influence of chloroform, but the results were still negative. Dr. J. P. Bramwell, who had been called in consultation, now suggested the employment of the aspirator. A No. 2 needle (Dieulafoy's) was accordingly thrust at right angles to and well into the sac; on turning the tap, about two drachms of a serous fluid and bubbles of gaseous matter were drawn into the instrument—a sure proof that the bowel had been perforated. The aspirator was now emptied and again set, and the needle drawn somewhat outwards. This change of position evidently placed the point in the hernial sac, out of which was drawn from four to five ounces of sero-sanguineous fluid. The tumor suddenly collapsed, and, on manipulation, the hernial protrusion was found to have disappeared. The patient made a rapid recovery. In his remarks upon this case, Dr. Bramwell questions whether any surgeon is warranted, as a rule, in performing the old operation for hernia, before having tried the simpler and safer plan of aspiration.—*Edinburgh Medical Journal*, Dec., 1874.

Progress in Medicine.

REPORT ON SURGERY.

By J. Collins Warren, M.D.

(Concluded from page 591.)

Ligature of Arteries in their Continuity (Centralblatt für Chirurgie, No. 32, 1874).—Ed. Lang, of Innsbruck, gives a *résumé* of eleven cases of ligature of arteries: Twice the common carotid, four times the lingual, once the subclavian, twice the external iliac, once the femoral in Scarpa's triangle, and once under the sartorius.

1. Gliosarcoma of the right tonsil. Osteo-plastic resection of the lower jaw, ligature of the right common carotid previous to extirpation of the tumor. Death at the end of ten days. Immediately after the ligature, bluish discoloration of right side of face and temple; also enlargement of the temporal artery. The operation was as bloodless as upon the dead body. Embolism of the arteria fossæ Sylvii brought on apoplectic symptoms and death.

2. Recurrent sarcoma of lymphatic glands on the right side of neck. Extirpation. Ligature of the common carotid during the operation. Recovery. The recurrence of the sarcoma, accompanied by hæmorrhage, rendered an operation necessary; during the operation, the bleeding was so excessive that it was necessary to tie the carotid.

3. Carcinoma of tongue. Extirpation after ligature of the right lingual artery. Recovery. Subsequent return of the disease, with usual result.

4. Carcinoma of the tongue and of the floor of the mouth, and of the lower jaw. Ligature of both lingual arteries. Extirpation. Œdema of the glottis. Tracheotomy. Death from septicæmia. In this case the larynx was so low down in the neck that the incision for tracheotomy had to be extended to the sternum and the thyroid cartilage drawn up by hooks and forceps.

5. Carcinoma of tongue and floor of mouth. Preliminary ligature of one lingual artery. Extirpation of the growth. Diphtheritis, pyæmia, death. A pyæmic inflammation of one sterno-clavicular joint existed.

6. Union, with deformity, after fracture of the neck of the humerus. Resection of the projecting end of the lower fragment. Hæmorrhage from a resulting abscess; ligature of the subclavian under the clavicle; recovery. Reflected light was used to illuminate the deep parts of the wound during the operation.

7. Compound fracture of the right thigh. Hæmorrhage from an abscess. Ligature of the right external iliac. Death from exhaustion, on the twenty-third day after ligature. At the autopsy, the ends of the arteries were thickened to double their size by growth of the middle coats; there was also amyloid degeneration of the liver, spleen and kidneys. At the seat of fracture, a hollow cylinder of new bone enclosed the fragments, which were still movable.

8. Severe injury to the left leg. Amputation through condyles of femur. Ligature of femoral in Scarpa's triangle, of the external iliac, and, finally, of the branches of the femoral in the triangle, for secondary hæmorrhage. Recovery.

9. Total necrosis of left femur. Removal of the sequestrum. Ligature of femoral under the sartorius for uncontrollable hæmorrhage. Recovery. Ligature difficult, on account of the inflamed and thickened tissue.

A Method of treating White Swelling of the Joints, more especially of the knee-joint, is given by Richard Barwell, F.R.C.S. (*British Medical Journal*, Oct. 17, 1874). The writer bases his treatment on the fact that, "after the first phase of the disease, strumous synovitis, the fungoid disease of the joint is not inflammatory, is not overaction, but underaction; and that some treatment to excite action, not rest, lotions, &c., which discourage action, is the right method of treatment."

The writer further says:—"As we stimulate indolent, flabby granulations of an old ulcer or of a wound by nitrate of silver or sulphate of copper into the production of a tissue, so it struck me I might also, by a direct application, stimulate sluggish tissue of a strumous synovitis into a more healthy condition; and for this purpose injection of minute quantities of a stimulating drug seemed to me the most direct method."

The fluid injected by the writer consists of half a drachm of the tincture of iodine to the ounce of water. The method of using the drug is thus described:—"A syringe with a very fine needle should be used, and care must be taken not to inject into the cavity of the joint, but into the thickness of the morbid tissue." Injection must not be employed when any active inflammatory process is going on; the temperature of the joint must not be at all higher, or but a portion of a degree higher, than that of the opposite side. No pain should exist, at the most only a dull aching, "which is rather a sign of fulness of the veins than of arterial hyperæmia." The puncture should be made in the softest and most prominent parts of the tumefaction, making from two to four punctures; into each of these punctures he injects about five minims of the fluid, withdrawing the needle a little as the piston descends, so that the fluid occupies a line rather than a spot of the tissue. After injection, he uses compression by means of an elastic bandage put on with such tightness as will escape producing congestion or œdema of the limb below. The effects are quite painless, save the puncture. In all cases, he says, decreased size, increased hardness of the tumor, with disappearance of the dull, aching pain has resulted, and the renewal of the use of the joint to an extent according to the amount of injury which the disease had already produced. As the tissues of the joint harden more and more under the use of injection, so may passive movement be used with considerable freedom. The author gives two cases successfully treated in this manner.

Subcutaneous Division of the Neck of the Thigh-bone.—Mr. William Adams continues to perform this operation, which he has now done for the fifth time. An account of his last operation is given in the *British Medical Journal*, July 11, 1874. The patient, a girl, aged 18, began to suffer from disease of the right hip-joint when she was eight years of age; for the last eight years, her right thigh had been permanently deformed, flexed and adducted, so that the knee rested over the centre of the left thigh. She formerly walked with two crutches, but had lately used only one. She had never worn a high-heeled boot

of any kind, and the toes of the right foot, when she stood up, were about six inches from the ground. Thus the leg was perfectly useless, and was atrophied. The patient having been placed under chloroform, a sharp-pointed scalpel was inserted from above the trochanter and passed across the front of the neck of the femur. A fine saw was then introduced at the same aperture, and the bone was divided in a little more than four minutes. Richardson's styptic colloid on cotton-wool, carbolic-oil dressing, and pads of lint were at once applied. The tendons of the tensor vaginæ femoris, adductor longus, and rectus femoris were then divided subcutaneously, and the whole limb was finally fixed to a long, straight, outside splint. The limb, which, before the operation, had been flexed at a right angle to the pelvis, was, after the operation, placed in a state of complete extension. This was the first case operated upon by Mr. Adams, in which the union was not bony, but the movement at the joint was so slight that no other mode of procuring relief seemed to offer much chance of success. The operation has now been often practised; Mr. Bryant has performed it twice at Guy's Hospital, and Mr. Maunder once at the London Hospital. These three cases and Mr. Adams's previous four cases have all healed without suppuration.

Dr. H. B. Sands, of New York, reports a case, operated on by this method, the patient being twenty-five years of age. In this case, there was, also, no bony union, "but a useful and satisfactory false joint resulted."

Incision versus Excision of the Knee in Children is the title of a paper by Edward Lund, F.R.C.S., read at the annual meeting of the British Medical Association. Mr. Lund argued that, in a large proportion of cases under twelve to fifteen years of age, the incision was the better operation. The mode of procedure was peculiar, inasmuch as he only opened the joint by an incision in its external side, and through this, by means of a curved cutting hooked knife, which was passed into the joint, or so much of the natural cavity as remained, all adhesions were broken down, or cut through, so as to permit the bones to be replaced in a straight line. It was rarely possible to do this immediately, on account of the contraction of the tendons; but several contrivances were shown, by which, by the use of elastic, India-rubber bands, long-continued, slight pressure produced excellent results, and firm, straight anchylosis of the knee was the result. It was, however, one essential condition of the operation which Mr. Lund recommended, that it should be conducted entirely upon Mr. Lister's system of antiseptic dressing, for without these precautions it might, in many cases, prove a hazardous proceeding.

Massage.—M. Fontaine gives a contribution to the subject of treatment of sprains by massage (*Archives Méd. Belges*, 3, 1874). The author became interested in this subject on hearing of great success attending the use of massage in all forms of injuries to the limbs by a certain female practitioner in the village of Thelin, Belgium. M. Fontaine has had great success himself with the massage. The limb is first covered with oil, and the part is rubbed with one or both thumbs, in gentle movements, from the extremities upwards, following, in general, the direction of the muscles and tendons. The affected, painful spot should be rubbed gently, while the healthy neighboring parts should be treated more energetically, and the muscles at times tho-

roughly kneaded. This manipulation should last from a quarter to half an hour, and should be repeated three times daily. In the interval, the limb should be raised and bandaged. According to the author, massage acts favorably, by spreading the extravasated blood over a large surface, and thus favoring absorption.

By the rupture of the vessels, the blood is extravasated between the ligaments, tendons, and the sheaths of tendons, and becomes the chief cause of pain and swelling, and crepitation frequently felt.

The author thinks that all forms of acute or chronic joint-inflammations are thus avoided.

Diseases of the Anus and Rectum.—Hayem's Review (Vol. ii. 1874) contains extracts from a paper on this subject, contributed by Esmarch to von Pitha and Billroth's Surgery :—

Prolapsus of the Rectum.—The author notices the complications of this affection, chiefly hernia, existing in a sac formed by the peritoneum, which the prolapsed rectum draws down with it. This hernia can become strangulated ; in case it cannot be reduced by taxis, the sac may be laid open from the perineum, or, as has been done by Bünger in one case, to open the abdominal cavity on the median line, and draw up the sigmoid flexure, which had become strangulated ; the patient recovered. In the way of treatment, the author recommends the actual cautery applied to the anus, a plug of cotton batting having been previously introduced into the rectum.

Growths in the Rectum and Anus.—The benign growths are polyps, which belong to the class of papillomas or adenomas. The latter are the most numerous.

Cancer is most frequently epithelial, of pavement form at the anus, and cylindrical in the rectum. The latter often becomes alveolar. The consistence of these growths varies from that of a scirrhus to colloid cancer. They are rarely pediculated, and generally infiltrate the surface and deeper parts, converting the rectum into a rigid tube, and invading neighboring organs. Sarcoma is very rare ; melanotic sarcoma has been observed.

Although epithelioma ulcerates early, Esmarch thinks that cancer of the rectum can remain several years without causing serious complications.

For the purpose of diagnosis, he recommends exploration of the rectum by introducing the whole hand, as described by Simon. He is in favor of extirpation, and gives a number of successful cases. The author cites a case examined by Billroth four years after the extirpation of a circular cancer, by Schuh, in which there had been no return of the disease. If complete extirpation is not possible, he recommends scooping out the disease with a sharp edged spoon, to diminish pain and facilitate emptying the bowel. He is not in favor of making an artificial anus as palliative treatment.

Catheterization of the Larynx.—Dr. von Hüttenbrenner *(Jahrbuch für Kinderheilkunde,* Jahrg. viii., 1 Heft), in an article on catheterization of the larynx in croupous and diphtheritic affections, comes to the following conclusions :—

1. At each introduction of the catheter or of Weinlechner's tube into the windpide, the child is liable to become asphyxiated. This occurs from difficulty in introducing the catheter without proper assistance, or from separation of membranes or fragments thereof, which cannot

be coughed up, and falls down into the trachea or on to the bifurcation of the bronchial tubes.

2. Catheterization performed repeatedly, at each return of dyspnœa, is found to be injurious, for, while it does not do away with tracheotomy, it taxes, in a high degree, the strength of the child.

3. It is almost impossible to avoid wounds of the mucous membrane in the buccal cavity during introduction of the gag, and, during catheterization, superficial abrasions are also likely to occur; these bleed readily, and, in a few hours, are covered with a croupous or diphtheritic membrane.

4. Catheterization of the larynx is of temporary benefit only, the effect lasting but a few hours, followed by a return of the previous symptoms.

5. The operation requires numerous and skilled assistants. It cannot, therefore, be readily employed in private practice.

6. Where rationally employed, the operation should be resorted to but once, and then only to gain time. With this exception, it should never be employed in croup, since, with all its dangers, it never takes the place of tracheotomy.

The remarks made by the writer in this article were not intended to refer to the indications for catheterization of the larynx in other diseases than those above mentioned.

Bone Absorption.—Dr. Alexander Morison, of Edinburgh, a former pupil of Kölliker, has continued his researches on bone absorption by giant-cells. These cells, as is now known, are to be found in the line of demarkation which separates the sequestrum from the live bone about it. The small, circular hollows, found on the surface of the sequestrum, which exactly fit the granulations on the living bone, were described, long ago, by John Hunter. It is the histology of this vascular layer, and of these "small, circular hollows," which has been the subject of investigation by Dr. Morison; and if we have not even yet been informed how absorption of bone is actually effected, we have, at least, been made acquainted with various steps in the process. Kölliker showed that absorption in the normal course of the development of bone produces small cavities, and that these are filled, without exception, with giant-cells, or myeloplaques—with one, a portion of one, or several. He believed that these giant-cells arise from osteoblasts (the cells from which bone-tissue is developed), and that they are the agents by which bone (and tooth) are normally absorbed. Morison's investigations go to support this description and opinion. He has seen intermediate forms between osteoblasts and giant-cells; but he is inclined to believe that the latter may also arise by the aggregation of the nuclei of embryonic connective tissue in the spaces in the edge of bone which is being absorbed. It is possible, also, that the giant-cells may grow by proliferation of the connective tissue in the wall of a capillary. Whatever their origin, the presence of these peculiar cells in the line of absorption of bone seems to be now fairly established, and the idea may be entertained that their function is a destructive one. When separation is complete, they would appear to be succeeded by constructive or formative cells, which arise from the embryonic connective tissue about them.

Tannin as a Surgical Application.—Mr. Philip Miall, in a communication to the *British Medical Journal* of Nov. 7th, extols tannin as an astringent in surgical dressings.

The strong solution of tannin is, he says, a most powerful astringent, almost free from irritating properties. It is one of the best dressings for wounds—far superior to collodion, and even less irritating than the styptic colloid, which it somewhat resembles. If applied by a brush, and allowed to dry, it soon forms a pellicle, which excludes the air, and gives ease to pain. To prepare it of full strength, an ounce of perfectly fresh tannin must be mixed with six drachms of water, in which it readily dissolves. The solution is a thick fluid, of the color and consistence of treacle, which keeps much better than tannin itself. He is in the habit of prescribing it as Martin's solution, having learned it from a paper by Mr. Martin in the *British Medical Journal* of March 20th, 1869. Mr. Martin recommended it as a method of converting living skin into leather.

Most of the tannic acid found in shops contains a large proportion of gallic acid, and will not yield a very strong solution. But, if an ounce of old tannic acid be mixed with two ounces of water, a tolerably strong solution, which answers for many purposes, may be decanted off after subsidence.

It may be applied to almost any form of ulcer, and to wounds after amputation or other operations, especially when not very deep. It answers well, for instance, after the operation for hare-lip, applied in the same way as collodion is sometimes used.

In a female, aged 26, the hair was caught between rollers and the whole scalp removed to within an inch of the left eyebrow and two inches from the right, round on a level with the tips of the ears to about the external occipital protuberance, the periosteum being extensively removed at the vertex. There was much suppuration, followed by erysipelas. After three months, exfoliation of bone occurred, and skin-grafting was performed, first with eleven grafts, and, six weeks subsequently, with twenty-one. After varied treatment, antiseptic and other, little progress was made, till, nine months after the accident, strong tannin-solution was applied. Discharge and fœtor diminished at once, and the healing process went on more quickly than before. Tenderness diminished, and the general health improved rapidly for the first time since the accident. The wound, eighteen months after the accident, was about half its original size, and the discharge trifling.

Strong tannin-solution, applied to the ulcerated skin of ingrowing toe-nail, at once removes pain. After one application, the offending corner of the nail may be readily raised, a little lint inserted underneath, and the nail allowed to grow up.

Chronic phlegmonous erysipelas in the legs may be painted with it with great advantage. He has not found it so useful in acute erysipelas or erythema.

The Treatment of Hydrocele in Infants.—M. Marjolin (*Lyon Médical*, No. 18, 1874) states that this affection is cured spontaneously in the majority of cases, and that there is danger in puncture, owing to the frequent communication of the cavity of the sac with the peritoneum. Hydrocele does not interfere in any way with the development of the testicle. If puncture and injection are necessary, the finger should be placed at the neck of the sac, to prevent the entrance of fluid into the peritoneum. M. Marjolin uses the tincture of iodine, but does not state of what strength.

Bibliographical Notices.

Transactions of the New Hampshire Medical Society. Eighty-fourth Anniversary, 1874.

It is agreeable to note the fact that the New Hampshire physicians believe in the promotion of good fellowship and fraternity by a semi-annual gathering, at which social exercises are substituted for the more solemn and elaborate scientific proceedings to which the annual meeting is devoted. In this judicious interchange of recreation and instruction, our neighbors set a good example, which we should like to see generally followed.

The Annual Address of the President of the Society, Dr. Swett, of Newport, was devoted to the consideration of a theme which, in these latter days, has proved both seductive and difficult—the duties of the profession in relation to alcoholic preparations. The subject is treated with evident sincerity, growing out of strong convictions. Occasionally in the discourse, the zeal of the philanthropist and the reformer is substituted for the calm and dignified impartiality of scientific investigation; but in general there is a gratifying absence of that intemperance in expression and ideas which too often characterizes the efforts of temperance advocates. The author places himself at a disadvantage by adopting, as infallible, the conclusions of Lallemand, Duroy and Perrin concerning the action of alcohol in the system, conclusions which have been repeatedly refuted by the observations of more recent physiologists. The views of the authorities above named have served a good turn for the cause of temperance, but it is time they were quoted with something more of reserve than has been customary.

Passing to the clinical and pathological part of his address, Dr. Swett gives abundant evidence against the abuse of alcohol, medicinally or as a beverage. The effects of alcohol on the digestion are portrayed with vigor. "Strong drink" gives no assistance to a man's healthy mental or physical powers, but rather curtails them and shortens life; it does not enable one better to withstand cold or heat; "metamorphic changes are retarded, and thus a large amount of carbonaceous element is retained in the blood, deteriorating that fluid . . . . or else is deposited in abnormal proportion about the heart, liver or kidneys, producing what is called fatty degeneration."

The address closes with an exhortation to physicians to use their special opportunity in impressing on all with whom they come in contact the evils which alcoholic intemperance entails. "To physicians more than to others, does it belong to show that inebriety is a disease, hereditary as well as acquired, and that no legal enactments, whether license, restrictive or prohibitory, can be of much avail until the sentiments of the people become sustaining, and such enactments have for their basis pathological knowledge."

The Annual Oration, by Dr. Dinsmoor, dealt with quackery, especially that which is within the pale of the profession. Among the manifestations of this empiricism, the author mentioned a too reliant faith in the self-limitation of diseases and a consequent distrust of medicines; a habit of misrepresenting to patients the severity of their diseases; the production of abortion; the prescription of alcohol in wasting diseases; the abuse of consultations; and the consulting with irregular practitioners. Dr. Dinsmoor proposes a radical measure for the treatment of the quackery which is not confined to the regular profession; he would "advocate the enactment of a law making it a *felony* to practise medicine or surgery without a license from competent authority."

Dr. Frost, of Hanover, presented an Essay on Tuberculosis, giving a concise review of the prevailing opinions concerning the pathology of the disease. His own opinions inclined him to adopt the hypothesis of Niemeyer, that tuberculosis is usually of inflammatory origin.

In an elaborate and very instructive paper on Climatology, Dr. Ham, of Dover, discussed the changes which have been observed in our climate in a

long series of years, and the effects of those variations on disease. He concludes that our climate has not undergone a change in temperature, nor as regards rainfall, but that as the direct result of man's agency in felling the forests, in agriculture, in the building of canals and railroads, and in the introduction of a general system of drainage, the atmosphere has become more dry. As a consequence, in part, of this lessened humidity and so of the diminished amount of ozone in the air, we have a progressively lessened mortality-rate from phthisis and other respiratory diseases.

The Treatment of Marasmus, Whooping Cough and Debility in Children by Electricity. Re-printed from the Detroit Review of Medicine and Pharmacy, October, 1874. *The Longevity of Brain-Workers. Cases of Hysteria, Neurasthenia, Spinal Irritation and Allied Affections.* Re-printed from the Chicago Journal of Nervous and Mental Diseases. By GEORGE M. BEARD, M.D., New York.

DR. BEARD'S experiments, made upon babies and the young, whether suffering from diseases of various kinds or from debility alone, have led him to the conclusion that infants are even less susceptible to electricity, whether general faradization or central galvanization, than adults, while at the same time "all the sedative and tonic effects of its application—improvement in sleep, in appetite, in digestion, and in muscular growth and increase of capacity for work—are realized by children as markedly as by adults, and with fewer apparent exceptions and fewer injurious results.

Furthermore, central galvanization, applied for five or ten minutes three times a day, was found of specific benefit in nineteen cases of whooping cough.

The results are of great interest; but, as we know so little, definitely, as to the part played by the central nervous system in controlling the nutrition of the other parts of the body—in the production of whooping cough, for example—we must be circumspect in drawing conclusions from them.

That active brain-work predisposes to disease and a short life, is satisfactorily shown to be untrue.

The conditions necessary to health are too complicated to be satisfactorily dealt with in a few rules of thumb about exercise and good hours.

Such is the power of adaptability of the human organism that, in spite of luxury and mental toil, which are supposed to pull and push their owner towards an early grave, good, if not perfect, health still remains within the grasp of a cultivated intelligence, and the power of purchasing means of protection, comfort and cure.

For the cases of hysteria, &c., which do not admit of a short notice, we refer to the original. They contain nothing of unusual interest.

BOOKS AND PAMPHLETS RECEIVED.

The Diseases of the Stomach. Being the third edition of the "Diagnosis and Treatment of the Varieties of Dyspepsia." Revised and enlarged. By Wilson Fox, M.D. Philadelphia: Henry C. Lea. 1875. Pp. 283. (From James Campbell.)

The Early History of Practical Anatomy. Introductory Address. By Wm. W. Keen, M.D. Philadelphia: J. B. Lippincott & Co. 1874. Pp. 43. (From James Campbell.)

Orthopœdia. A Treatise on the Human Form. By James Knight, M.D, New York: G. P. Putnam's Sons. 1874. Pp. 364.

The Longevity of Brain Workers. By George M. Beard, M.D., of New York. Pp. 16.

The Legitimate Influence of Epilepsy upon Criminal Responsibility. By Meredith Clymer, M.D. (From the Proceedings of the Medico-Legal Society of New York.) New York. 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, December 24, 1874.

The letter, which we publish to-day, from Dr. Cutter to the Middlesex East District Medical Society, though open in some points to criticism, is worthy of careful consideration. We welcome suggestions of this nature, even when we do not quite endorse them, as they often give rise to profitable discussion. We agree cordially with Dr. Cutter as to the reforms and improvements he suggests, though we are inclined to question the advantage of the plans by which he suggests that some of them should be brought about. We must mention, by the way, that some of the shortcomings he alludes to have not been overlooked; the State Board of Health has taken up the matter of reports of prevalent diseases, and we were the first, after the notorious Alley trial, to urge a reform in expert testimony. Efforts have been made to obtain legislation on the subject, but so far without success. It is not necessary to look to Albany for an example of a city asking advice on the water question from competent medical men; this has been done in Boston. But it remains to be seen if the advice will be followed.

It is certainly desirable that all possible light should be thrown on subjects discussed at medical meetings, but we are not sure that the plan proposed would work well in practice. Few men are versed on all subjects, yet according to this plan every one, no matter how ignorant, must speak. We shudder at the agony with which those really acquainted with the subject under discussion must listen to the talk of those that know nothing. It can hardly be flattering to one who, for instance, has passed his life in the study of obstetrics, to have the opinion of a recent graduate, who may never have seen a case, put on an equality with his own, particularly as this plan forbids the discussion by which the strength or weakness of any view would be made evident.

We do not quite understand Dr. Cutter's position concerning the treatment of original investigations. The object is to advance science, and this can only be done by good work. Bad work retards it. Undoubtedly it is better to have tried and failed than not have tried at all, and the writer certainly should be treated with courtesy; but this does not mean that his errors or crudities should pass uncensured. Nothing is so essential to progress as severe criticism of alleged discoveries: if they are good, their merits will be made more prominent; if bad, the sooner they are put out of the way the better.

We are sorry to learn that Mr. Albert T. Whitney has resigned his position as a member of the city Board of Health. He was re-appointed last May for three years. He was remarkable for his energy and determination in the discharge of his duty. We understand that the cause of his resignation is the necessity of returning to business, his salary being insufficient. It is greatly to be regretted that the city cannot see the advantage of paying enough to secure the best men to serve in such positions. Nothing is saved by this parsimony in such matters. Mr. Whitney's resignation goes into effect on January 1st. The Hon. Henry G. Crowell is appointed his successor.

The Hospitals.

BOSTON CITY HOSPITAL.

Service of Drs. Cheever, Thorndike and Fifield.

The operations performed on Tuesday and Friday, Dec. 15th, and 18th, 1874, were as follows:—

1. Ovariotomy.
2. Paracentesis Abdominis.
3. Cyst of the Neck.
4. Vascular Excrescence of Urethra.
5. Anchylosis of the Elbow.
6. Re-adjustment of Flaps.
7. Necrosis of Frontal Bone.

4. Six years ago, this patient, a middle-aged woman, had a similar growth removed from the meatus and the surface cauterized with nitric acid. The relief was perfect for two years, when her former symptoms began to return and have gradually increased. During the past two months, the desire to empty the bladder has been almost constant and the micturition attended with much scalding. The mucous membrane of the lower two thirds of the meatus presents a bright red, vascular appearance; it is hypertrophied and slightly lobulated, and projects from between the lips of the meatus like a strawberry. The diseased surface was lightly touched with the galvano-cautery and a cold-water dressing applied. Dr. Cheever spoke of a similar case, seen by him a few years ago, in which a woman had been treated four months for supposed "disease of the womb."

These growths are made up of bloodvessels, connective tissue and thickened mucous membrane. However treated, they are very apt to return, and, though not malignant, are yet very troublesome.

The galvano-cautery, or the actual cautery, applied freely till all the diseased structure is destroyed, promises the best results of any of the proposed methods of treatment.

5. The patient is a young woman who had acute rheumatism last winter. Several joints were affected, but all recovered perfectly, except the left elbow, which is anchylosed in a nearly straight position. The adhesions were broken up last April, but have re-formed. There is a very slight motion in the joint, and the arm is free from swelling and inflammation. The patient having been etherized, the adhesions were thoroughly broken up, so that the forearm could be flexed to its normal extent.

Dr. Cheever proposes to give passive motion a fair trial, and, should anchylosis be found inevitable, to fix the forearm at a right angle, so the hand can be carried to the head.

6. Amputation of the arm was performed upon this young man several weeks ago for a railroad injury to the elbow-joint. The flaps had contracted

irregularly, so that a cutaneous and granulating surface were apposed. The flaps were dissected up, trimmed and carefully united with wire sutures.

GEO. W. GAY, M.D.

Correspondence.

AMERICAN MEDICAL ASSOCIATION.

DECEMBER 19, 1874.

MESSRS. EDITORS,—I am willing to let my letter speak for itself so far as the American Medical Association is concerned, and I should not have a word more to say upon any topic connected with the views I have already given in my letter, if in your editorial upon it you had not expressed an opinion on two points, to which I ask the privilege of replying.

1st. The apology, or whatever it may be called, made by the American Medical Association, in 1872, for the unfortunate (to use the mildest term) proceedings in Washington in 1870, was submitted to many, if not all, of the Massachusetts delegates present at Philadelphia. A sincere desire was manifested by men high in influence with the American Medical Association to heal the breach between the two societies. In its terms it was wholly satisfactory to those of us who read it, and who could have amended it before it was laid before the meeting. We really supposed, perhaps unwisely, that it was sufficient, and so told the gentleman who proposed to offer it for the consideration of the Association. The blame, therefore, is again to be laid justly on Massachusetts men, who were, unwittingly, not sufficiently jealous, perhaps, of Massachusetts honor. But no blame can be laid on the American Medical Association or its officers for shortcomings in this respect.

2d. You intimate that my simple suggestion that the power of the Councillors is only *advisory* (that is, on the matter at present under discussion) tends to create dissensions between the Councillors and the District Societies. Certainly nothing could be farther from my thought than such an intention. I simply stated a legal fact, and if I am wrong I am willing to be corrected. I stated, and I repeat the statement, that in the election of delegates to the American Medical Association the action of the Councillors is simply "*advisory*," and that the "*power to choose*" rests with the District Societies. Will you kindly correct me if I am in error, for I cannot, at present, see any flaw in that proposition? I know that the contrary opinion exists, somewhat widely diffused in the State. Your Editorial will help to confirm that opinion. I verily believe that it is radically wrong, and fraught with real dangers to the well-being of the Massachusetts Medical Society and of its District Societies.

For these reasons, I am obliged to trouble you again upon this subject, which certainly must be a much less interesting one to the majority of your readers than a discussion of some more strictly professional topic.

I remain very truly yours, HENRY I. BOWDITCH.

[As we have expressed ourselves ready to overlook the insult, it is hardly worth while to discuss the apology. We could say, however, that we learn from good authority that some of the leaders of the Association refused, in private conversation, to support any resolutions involving an acknowledgment of wrong.

There is no question whatever that *the power of the Councillors is simply advisory*, except in certain cases provided for in the By-Laws. We had no intention of giving any other impression. Dr. Bowditch's remark implied that the advice of the Council, if opposed to sending delegates, should not be taken; and we thought it right to protest against an appeal from a body, appointed to advise and capable of advising, to a larger body that has not the first and may not have the second of these attributes.—EDITORS.]

Medical Miscellany.

CORRECTION.—JAMES H. McDONELL, not Mc*Donald*, was appointed Assistant Surgeon of the Ninth Regiment, M. V. M.

ATROPIA is highly extolled by Dr. T. Lander Brunton as an antidote to poisonous mushrooms.

A HYGIENIC INSTITUTE is to be erected at Munich, to be placed under the directorship of Prof. v. Pettenkofer.

Zeno, the fatalist, whipped a slave for theft. "It is fated for me to steal," said the thief. "And to be whipped," rejoined the philosopher.

TRICHINIASIS.—In Linden, a suburb of Hanover, an extensive epidemic of trichiniasis has recently braken out, about 400 individuals having been attacked at last accounts. Of 70 cases treated at the hospital, 21 had terminated fatally. The malady was in each instance traceable to infected pork.

THE RIGHT DOCTRINE.—"One state of the mind is essential to all crime, namely, the intention to commit it. . . . . If a criminal be compelled by necessity to commit crime, so also is society compelled, by the necessity of suppressing crime, to have him punished."—DR. BUCKNILL, *Lecture*, Nov. 20, 1874.

A FIBROMYOMA OF THE FUNDUS UTERI was recently removed by Lawson Tait by the abdominal section. The tumor had been in existence for five years, growing rapidly in the preceding months, causing great distress by its pressure on the pelvic organs. The tumor, after removal, weighed eight pounds.—*British Medical Journal.*

ASPHYXIA IN CROUP.—It is a well-known fact that children not infrequently die of croup with symptoms of dyspnœa, in whom no false membrane can be detected at the *post-mortem* examination, nor any other change which would account for the phenomena of asphyxia. Niemeyer attributes the cause of death in these cases to paralysis of the infiltrated and relaxed muscles of the larynx. If false membranes are present, both in- and ex-piration are obstructed; if, however, there is paralysis of the laryngeal muscles, and especially of the crico-arytenoideus posticus, inspiration alone is interfered with.—*Niemeyer's Lehrbuch.*

ADULTERATION OF SUBNITRATE OF BISMUTH.—At the Cook County Hospital, an extensive burn of the leg was treated by dusting subnitrate of bismuth over the open surface of the wound and then covering it with dry lint. In a few days, symptoms of metallic poisoning exhibited themselves; the patient complaining of increased pain at the seat of injury and a metallic taste in the mouth. A blue line soon appeared upon the gums, and numerous small ulcers were formed upon the mucous membrane of the cheeks. Upon testing the bismuth, this substance was found to contain large quantities of lead, which was undoubtedly the cause of the metallic poisoning.—*Chicago Medical Journal*, December, 1874.

RECTO-VAGINAL FISTULA CAUSED BY A PESSARY.—At a recent meeting of the Obstetrical Society of London, Mr. Churton related the particulars of a case where a patient, aged 60, had worn a pessary for two years, by means of which a recto-vaginal fistula had been produced, large enough to admit two fingers. In the discussion which followed, Dr. Routh observed that he had seen an instance where a globular pessary was retained for five years and then removed with forceps. He had also known of two cases in which Hodge's pessaries produced fistulæ.

Dr. Wiltshire mentioned a case in which a Zwanck's pessary caused fistulous openings into both the bladder and the rectum. He regarded gouty women as very intolerant of pessaries, incrustations rapidly ensuing on them. —*British Medical Journal.*

Doctors (of Law) Disagree.—It was not, as generally supposed, of doctors of medicine that Pope wrote:—

"Who shall decide when doctors disagree,
And soundest casuits doubt, like you and me?"

Nor would he now, when the law, which should be fixed and certain above all things, is so unstable in the decisions of its greatest expounders. A distinguished lawyer, says the *Medical Times*, recently stated of the judges lately examined on the law of homicide, by a committee of Parliament, that "they flatly contradict each other."

Lime Glycerine for Burns.—The following preparation has been used by Lamb for several years with great success:—

℞. Oxidi calc., gram. iij.;
Glycerinæ, " cl.;
Spts. æther. chlor., gram. iij. M.

Charpie is to be dipped in the mixture and placed over the burned surface; it is then covered with a sheet of gutta percha, and then a layer of charpie is added, the whole being then enveloped in a loose bandage. The pain ceases almost instantly and the sore heals very rapidly.—*New York Medical Journal.*

Malignant Pustule produced by a Fly-bite.—The patient, a coachman, was conscious of being bitten by a fly on the 28th of March last. The puncture was inflicted in the temporal region, and a minute mark was left by it, not unlike a flea-bite, at which point some itching was experienced upon the following day. Upon the evening of the 29th, a swelling appeared in the temporal region, which extended over the entire face, becoming so intense that, upon the evening of the 30th, the eyelids could no longer be parted. April 1st, he was received into the hospital, upon which occasion the characteristic black eschar was noticed, surrounded by a coronet of vesicles. In spite of the most heroic treatment (incisions and cauterization), no decided relief was obtained, the swelling and gangrene slowly extending until the left eyelids, the soft tissues of the nose, the lips and the left ear all sloughed and became detached, imparting to the face the appearance of a hideous mask. Death finally ensued May 10th. No trace of bacteria could be detected either in the blood, nor the serum of the vesicles, and the inoculation of rabbits with the blood was followed by negative results.—*Lyon Médical*, September 13, 1874.

Mortality in Massachusetts.—*Deaths in sixteen Cities and Towns for the week ending December* 12, 1874.

Boston, 133; Worcester, 15; Lowell, 26; Milford, 2; Chelsea, 6; Cambridge, 20; Lawrence, 15; Springfield, 6; Gloucester, 2; Fitchburg, 2; Taunton, 3; Newburyport, 2; Somerville, 12; Fall River, 20; Haverhill, 3; Holyoke, 1. Total, 268.

Prevalent Diseases.—Consumption, 55; pneumonia, 30; scarlet fever, 11. No deaths reported from diphtheria.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

Deaths in Boston for the week ending Saturday, Dec. 19, 170. Males, 90; females, 80. Accident, 2; apoplexy, 5; asthma, 1; anæmia, 1; inflammation of the bowels, 2; bronchitis, 4; inflammation of the brain, 1; congestion of the brain, 2; cerebro-spinal meningitis, 1; cancer, 5; consumption, 27; convulsions, 2; croup, 8; debility, 4; diarrhœa, 2; dropsy, 1; dropsy of the brain, 5; diphtheria, 4; erysipelas, 1; scarlet fever, 7; typhoid fever, 3; gastritis, 2; disease of the heart, 7; hæmorrhage, 1; homicide, 1; intemperance, 2; disease of the kidneys, 4; laryngitis, 2; congestion of the lungs, 3; inflammation of the lungs, 18; marasmus, 11; measles, 1; old age, 9; paralysis, 4; premature birth, 2; pyemia, 1; rheumatism, 1; scalded, 1; suicide, 1; syphilis, 2; scrofula, 1; disease of the spine, 1; tetanus, 1; tonsillitis, 1; tumor, 1; whooping cough, 3; unknown, 1.

Under 5 years of age, 73; between 5 and 20 years, 14; between 20 and 40 years, 33; between 40 and 60 years, 17; over 60 years, 33. Born in the United States, 115; Ireland 39; other places, 16.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCI.] THURSDAY, DECEMBER 31, 1874. [No. 27.

OVARIAN CASES.

By DAVID W. CHEEVER, M.D., of Boston.

CASE VIII.—*Fibro-cystic Tumor of Uterus.*—Mrs. ——, 37 years old, has borne two children. Since their birth, she had a miscarriage, six years ago. She has been, and still is, regular as to her catamenia. Three years ago, she was accidentally kicked in the left groin. Soon afterwards, she noticed a tumor in the abdomen, which has steadily increased. Bowels, formerly constipated, are now regular. No urinary trouble. She now has some shortness of breath; pain in the side; a feeling of weight and a tired ache. No bearing down in the pelvis. Feet have lately begun to swell a little. Appetite and digestion are moderate. She is still able to go about.

A large fluctuating tumor fills the abdomen. It is dull in front and resonant on the flanks. There is a lobulated prominence over the left inguinal portion of the cyst. The os uteri is high up, not freely movable. The uterus is drawn to the left; the depth of the uterine cavity is four and three-fourths inches.

She is urgent for an operation.

The diagnosis is a multilocular ovarian cyst, partially solid perhaps, and drawing up and pushing over the uterus.

March 19th.—*Operation.* An open fire; a room with a temperature of 75°; a table and tub carefully fitted to the tube of the trocar; the rubber sheet of Mr. Wells fastened to the abdomen; and ether given in Underwood's inhaler—these comprised the more essential preparations. Drs. Sinclair, Campbell and G. H. Gay assisted me.

The sac was exposed and punctured, and a considerable quantity of fluid drawn off. As it ceased to flow, and a large tumor could still be felt, the trocar was thrust in deeper, but struck a solid mass, and brought only blood. Examination now revealed a large solid tumor, behind the cyst, and forming its posterior wall. It was free from adhesions and movable. The incision was enlarged, and the whole tumor delivered from the abdomen. It now proved to have a central root, and to be a uterine tumor, fibro-cystic. The solid portion was large, dense and heavy. The large, long-bladed screw clamps of Mr. Wells were made to embrace the pedicle, and the tumor was cut away. It was seen that the section was through the uterus, as its cavity was cut across, and a probe passed into the centre of the pedicle emerged in the vagina. Meanwhile, the cavity of the abdomen was occupied with a large warm sponge, and the sides of the abdomen were pinched together. Warm flannels were applied to the epigastrium, and the feet and legs of the patient, rolled in a blanket, lay in the sun by a closed window. The pulse continued firm and slow, and the patient was wholly unconscious. She retched and vomited once, when the solid tumor was delivered. The cut surface of the uterine pedicle was

full of veins, patent and large. It was found impossible to secure all these by pressure. Large hemp cord was carried through and through the pedicle, by transfixion with a long needle, and the mass was tied in four segments. A number of single silk sutures were applied to individual vessels, and the whole mass was cauterized with the hot iron and afterward covered with solid perchloride of iron and charpie. All bleeding having ceased, the uterine pedicle was secured from slipping back by being transfixed by a long steel needle, which lay across the pubes. The ligatures were all brought outside. The sponge was removed. The incision was closed by silk sutures and plaster; cotton batting and a binder were applied, and the patient lifted into bed, which was adjacent. Her condition was excellent. Full pulse and no vomiting.

The pedicle being so easily secured on the outside, together with the fact that the patient exhibited so much vigor, were circumstances inspiring hope, although the extreme gravity of the operation was realized. Two hours were consumed in all the steps of the operation. It was completed on Monday, at one o'clock.

Monday evening, the patient had rallied well. There was no vomiting. She passed urine frequently, and without effort.

Tuesday.—Hæmorrhage from the pedicle, slow, oozing, persistent, continuous. Temporarily checked by styptics and pressure. Otherwise doing well. Controls bladder; has no vomiting; not much pain; some opium was given. Liquid nourishment.

Wednesday.—Bleeding continues; dark, thin, oozing; constant efforts were made to check it. Patient not so strong. Abdomen more distended, but not tender. Cotton batting lightened and bandage loosened. No vomiting; more thirst. Patient is allowed cold water and ice; broth; milk gruel; champagne. She passes her urine easily; sleeps well in the day. I was called at 2, A.M., and found her in a partial syncope, gasping for breath and alarmed. Increased stimulants and opium. Hæmorrhage continues.

Thursday.—Discharge from pedicle is more offensive, but the bleeding is less. Irritation about the bladder; pain in abdomen. Distension of colon. Aspect haggard. Pulse rapid. No vomiting. Syringed out the vagina, emptied the bowels by warm enema, drew the urine. Removed all the dressings from the pedicle; no bleeding. Removed a stitch in the wound above the pedicle; this opening gave exit to a considerable foul fluid, and gas from the peritoneal cavity. An elastic catheter was introduced, and everything cleansed with dilute liquor sodæ chlorinatæ. There is still greater distension of abdomen.

Friday.—Perfectly easy and conscious; no discharge; no hæmorrhage; no vomiting or pain; countenance pinched; hands livid; no pulse at wrist. She died quietly at noon, four days (or ninety-five hours) after the completion of the operation.

I cannot but think that this patient would have survived the operation of ovariotomy.

Case IX.—*Cancer of the Ovary.*—In October, 1873, I for the first time examined Miss ——, about 18 years old. She had enjoyed good health up to two years ago, when she began to flag. About six months ago, it was noticed that the abdomen was enlarging. She is now as large as a woman at the ninth month of pregnancy. A semi-

fluctuating tumor occupies the space from the pubes to above the umbilicus. It does not transmit a perfectly distinct wave to the hand. It is oval and uniform in shape; dull on percussion; but the flanks are resonant. The uterus is virgin, movable and the depth a little less than two and a half inches. The cavity of the pelvis is not much encroached on. Nothing is felt by the rectum.

The patient is quite reduced and has a good deal of dyspnœa and some œdema of the legs. Pulse 120.

It was not until reduced to this condition that she would hear of an exploration or operation. The diagnosis did not appear to me perfectly clear, though I leaned to the belief of multilocular ovarian cysts, with jelly-like contents.

The usual preparations were made for the operation, and the precautions previously detailed were adopted. Doctors Nichols and Driver, of Cambridge, and Underwood, of Boston, assisted me.

An incision of four inches revealed the tumor, which was found considerably adherent. It was not of the white color of an ovarian cyst, but darker and reddish. Over its surface ran enormous and tortuous bloodvessels. The trocar was plunged in, without result; it was then pushed deeper in various directions, but no fluid came. On withdrawing the instrument, a thick, sago-like material oozed out, with hæmorrhage. The finger, passed into the trocar wound, could penetrate deeply through a soft, bleeding, homogeneous pulp, which was withdrawn in masses. It had all the appearance of soft cancer, which the microscope afterwards confirmed. The nature of the tumor, the size of the vessels, the adhesions and the constant hæmorrhage forbade our going farther. The bleeding was checked with perchloride of iron and sponges, and the wound left open, but gently bandaged. The bleeding persisted, though not excessively. The patient was kept warm and stimulated. She sank, and died the following day.

Case X.—*Ovarian Cyst.*—Miss ——, always delicate and a dyspeptic, began to fail in health and increase in size, last autumn (1873). Of late, she has grown large more rapidly, and now the abdomen has the size of the eighth month of pregnancy. The shape is oval; the front is dull, the flanks resonant on percussion. The umbilicus is not everted. There is an indistinct fluctuation. The pelvis is empty. The uterus is small, movable and normal. A fine trocar being inserted through the abdomen, a ropy, chocolate-colored fluid was drawn out; but it contained nothing remarkable under the microscope.

The patient is much reduced; she can only move about a room, gently. She is somewhat anæmic; pulse feeble. Her digestion is wretched, so that she has lately subsisted on pills of raw beef. Unfortunately, an operation has only been consented to now, when she has reached this feeble state.

An operation was finally decided on, after consultation, as a last resort, though we had grave fears that she might not be able to rally.

Operation, January 31st, 1874, with the assistance of Drs. Minot, Underwood and Chadwick. The incision revealed a partially collapsed and ruptured cyst, with ovarian fluid in the peritoneal cavity. Not many adhesions. As the trocar plunged into the tumor gave no result, the sac was seized with hooked forceps, drawn forward and laid open. With the hand inside the sac, it was now delivered from the abdominal cavity. The pedicle was distinct and long. A clamp was

applied and the cyst cut away. Large warm sponges were used to carefully cleanse the abdominal cavity. The wound was closed with four deep silk sutures, the clamp being secured at the lower end of the incision.

In less than an hour from the first steps of the operation, the patient was established in bed and warmth applied. She bore the operation better than was feared. At 4, P.M., she vomited, and then had fair reaction. She took beef-pills, brandy and opium; the urine was drawn.

Feb. 1st.—She was pretty comfortable, but lacked nourishment. In the evening, she became very hot, dry and restless, with pains in the abdomen and a little tenderness. One stitch was taken out, and a little odorless serum oozed out. Gentle pressure brought nothing more, and Douglass's fossa was found empty, per vaginam. She had vomited a green fluid in the afternoon. One fourth of a grain of morphia was now given subcutaneously.

Feb. 2d.—Reported an easy night. Nothing was put into the stomach, but an enema of beef-tea, and a little brandy was ordered every three hours. One pint of water, at 98° Fahr., was allowed to flow into the abdomen through a fountain syringe, by the opening where the stitch was removed. It ran out a little discolored, but not offensive. A temporary pain was produced, which passed off, and she expressed herself as feeling better. One fourth of a grain of morphia subcutaneously, and the enemata.

Evening.—Some fever. Abdomen less tender; has passed urine. Has had a quiet day, but is afraid to take anything into the stomach.

Feb. 3d.—The abdomen is slack and less tender. One more stitch taken out. Douglass's fossa empty. Fever is less. Urine passed. "Can't think of nourishment." Continue enemata, and morphia under the skin, when required.

Feb. 4th.—A fair night. Abdomen lax. One more stitch removed. Takes by the mouth, and retains, beef-tea, gruel and wine. Complains of a tenderness of left parotid gland; there is a slight swelling there.

Evening.—High temperature; skin dry; abdomen as at last report. Large swelling of left parotid, with pain and throbbing. Ordered hop poultice; morphia as before, and nourishment.

Feb. 5th.—A bad night. The parotid larger. Abdomen quiet. Douglass's fossa empty. The vagina contains a foul, semi-purulent secretion. The peritoneal cavity gently washed out through the wound, as before; no result followed. In the afternoon she vomited; and in the evening she died, five days and twelve hours after the operation.

Great previous exhaustion and dyspepsia, shock, non-assimilation, septicæmia were the sequences which led to a fatal result.

Case XI.—*Papillomatous Degeneration of the Ovary.*—The patient, 29 years old and married, when first seen by Dr. Marcy, of Cambridge, in November, 1873, had an oval, symmetrical tumor, nearly in the median line of the abdomen, and reaching above the umbilicus. She supposed herself pregnant.

Dec. 11th, while dancing, she complained of severe pain in the abdomen, and fell to the floor insensible. Since this time, she has been quite ill; her abdomen rapidly enlarged, and (Dec. 14th) measured thirty-seven and a half inches at umbilicus, and fluctuated. The fluctuation changed with position. Uterus normal in depth; movable, but bent over to the left side.

Dec. 22d.—As she was suffering extremely, we decided to tap her. I removed fourteen pints of yellowish-green, clear fluid. Specific gravity, 1020°. Coagulated solid with nitric acid ; some blood disks and pus cells seen with microscope. An irregular, firm mass remained in the left inguinal region. Diagnosis doubtful; I leaned to the belief of a subacute peritonitis, with a deposit of lymph.

The uterus now soon became unmovable, and the contents of the pelvic cavity fixed and inelastic. A gradual enlargement of the abdomen took place in January and February, a tumor pushing up from the left groin to the umbilicus and left lumbar region. The left side was much distended and fluctuating. An exploring trocar showed the contents to be a thin, purulent fluid, full of pus-corpuscles. A fluctuating point developed in Douglass's fossa, and was punctured by Dr. Marcy. Three ounces of a clear albuminous fluid escaped. This opening was enlarged, and admitted a sound two inches.

The tumor increased, and, on March 4th, Dr. Marcy, with the assistance of Dr. Hildreth, carried up a long curved trocar through the opening in Douglass's fossa, obliquely towards the median line, four inches ; entered a sac, and drew off forty ounces of pus. A firm mass remained. This vaginal puncture was kept open, and, soon after this, red, villous masses escaped from it, which Dr. Fitz pronounced to be papilloma.

"The diagnosis was at last undoubted. Primarily an ovarian cyst, which ruptured, allowing the escape of its fluid contents into the abdominal cavity; subacute peritonitis followed, and now, a multilocular cyst, more or less filled with hypertrophic villous masses, closely bound by adhesions to the pelvic cavity.

"During March and April, the patient improved very much in her general health, although the tumor was slowly enlarging.

"Mrs. M. determined upon the attempt of removal, after full explanation of her unfavorable condition and the great gravity of surgical interference.

"May 7th.—The operation was performed by Dr. Cheever, assisted by Drs. Underwood, Hildreth and Marcy. The cyst was firmly adherent anteriorly, and, attempting its separation, the thick, friable walls ruptured, allowing the escape of a portion of its fluid contents into the abdominal cavity. Extensive adhesions to the omentum, intestines and parietal walls were carefully separated, and required several ligatures. It was necessary to carry the incision two inches above the umbilicus. The pedicle was broad and thick, was clamped, but too short to be brought out externally, and was secured by a double ligature and left in the pelvic cavity. A large-sized Sims's drainage tube was carried through the vaginal opening and lower angle of the wound.

"The cyst contained about a quart of purulent fluid and several large papillomatous growths, which were easily broken down and proved a source of very troublesome hæmorrhage. The right ovary contained a cyst of the size of an English walnut, which was easily enucleated.

"Owing to the great loss of blood and the tedious dissection of the adhesions, the patient's condition was one to cause anxiety, and the latter stages of the operation were hastened as much as possible. The patient rallied slowly and imperfectly from her almost moribund condition.

"There was slight nausea, no vomiting, no bleeding, no pain. Took

beef-tea and brandy, in small doses, frequently. Enema of the same every two hours. Evening temperature, 99°. Pulse 112. Extremities warm. Urine freely secreted. Mind clear. Slept some.

"May 8th.—Had a comfortable night. A watery fluid, mixed with blood, flows from the tube. The abdominal cavity is washed every six hours, with a weak solution of carbolic acid, until it flows clear.

"Noon.—Temperature 100°, and pulse 120. Tube obstructed, and the contents, which were washed out, were fœtid. The microscope shows monads, bacteria, &c., in abundance.

"May 9th, A.M.—Slept part of night. No nausea; no pain; abdomen not tympanitic. Temperature 102°; pulse 140, weak. Extremities cold. Rapidly sinking."*

At Dr. Marcy's suggestion, transfusion of blood was tried, once by myself, and again by Dr. Marcy, some hours later. No apparent effect was produced; and she sank and died, about forty-eight hours after the operation.

CHLORAL HYDRATE AND MORPHINE.

By E. Chenery, M.D., of Boston.

The employment of chloral or chloroform in conjunction with an opiate in the treatment of painful affections, enables us to reach a degree of relief from suffering, accompanied by sleep, not heretofore attained. For, though opiates may be usually relied on to relieve pain, they "prop the eyes open," as it is said, in about one half of the cases, while chloral alone is not to be depended on as an anodyne, especially when the agony is great.

Some years ago, the writer had the case of a man who was a martyr to frequently recurring attacks of what was called "bilious colic." They had followed him a long time and were supposed to spring from habitual costiveness. Indeed, so extreme was this costiveness that he never seemed able to get along without physic, of which he required large doses—a teacupful of castor oil or a quarter of a pound of Epsom salts sometimes being necessary. He was eventually cured, however, by doses of one-half drop of croton oil repeated each night for a few times. It was found, by experience, that from a half to a whole teaspoonful of chloroform, with a full dose of laudanum, gave the quickest and best relief of the colic when the attack came on. Chloroform alone did not seem to answer the turn, while treatment by cathartics and opium was too slow and was apt to be followed by several days' feverishness. When the chloroform was used with the opiate, much less of the latter was required to give relief than when the chloroform was omitted, and the patient was much more likely to fall into a tranquil sleep and not require a second dose. It seems that Nussbaum, Claude Bernard and others found that chloroform and opiates produced a much more prolonged narcosis than would result from either alone, while insensibility to pain was also greatly protracted. Rabuteau gave narcein to a dog, after which he chloroformed him to sleep. After waking, the dog remained insensible to pain, and did not fully recover sensation till next day.

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* For a full account of this case, by Dr. Marcy, see this Journal for Sept. 24, 1874.

In a severe attack of internal neuralgia, the writer found morphia by the skin with chloral hydrate by the stomach or bowel to work admirably. Even large doses of chloral would not relieve the pain, and, of course, would not produce sleep, while morphia, when given alone, would be required in large doses, to relieve the distress, and would not be followed by sleep. When the two substances were used together, a much smaller dose of each was required to effect relief and procure sleep, while relief from the pain was very much more protracted than when the morphia was not aided by the chloral.

In several instances, the writer has prescribed these medicines in conjunction, and with the happiest effect. In such cases as are rendered wakeful on the use of an opiate, the writer has learned to supplement its anodyne effects by small doses of chloral, in order to secure sleep.

Dr. W. Pichler* found the combination of these two agents most valuable in the treatment of gall-stone colic. In Carlsbad, this disease is very common, and trials of morphia and chloral together proved much more useful than either alone, or any other remedy or combination of remedies. He says that, on inquiry, he found that other doctors had gained a knowledge of the same fact in the treatment of this disease. He therefore commends the combination in gall-stone colic and in the passage of renal calculi and neuralgia. We have not yet had a fair opportunity to test the value of this combination in cases of that form of neuralgia known as angina pectoris. In a severe case of sciatica, the external application of a mixture of one part of chloroform, two parts of oil of turpentine and five or six parts of alcohol, with the internal use of opium and quinine, gave excellent results. In this case, two portions of sulphate of morphia, by hypodermic injection near the most painful part, caused excruciating distress, with swelling and soreness of the parts, as if severely bruised. For many years, the writer's panacea in the treatment of hysterical spasms has been the internal use of a mixture of chloroform and laudanum, after the paroxysms have been relaxed by the inhalation of chloroform, so that the patient could swallow. One good dose of this mixture has usually sufficed to explode the fits, and persons who have been frightfully convulsed have in this way been speedily made "to take up their bed and walk."

The similar action of the opiate and chloral and of the opium and chloroform, somewhat confirms the belief of Dr. Liebreich, that chloral is converted into chloroform in the system, and as such produces its effects.

So far, then, as my own experience goes, I regard chloral a very great addition to our medicines, if for no other purpose than to correct the wakefulness so commonly following the use of opium, and to cause that agent to act in smaller doses, with more prolonged effect and without the feverishness and other evil consequences of its free use.

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* Allgemeine Wiener Med. Zeitung, Nov. 18, 1873.

Progress in Medicine.

REPORT ON GENITO-URINARY DISEASES.

By T. B. Curtis, M.D.

The Action of Mercury, internally administered, upon the Blood.—Dr. Wilbouchewitch, of Moscow (*Archives de Physiologie*, p. 509, 1874), publishes a very interesting article on the alterations of the blood produced by the administration of mercury. His researches were carried on at the Histological Laboratory of the College of France, in Paris, by means of the ingenious apparatus for counting blood corpuscles devised by Malassez and described by him in the *Archives de Physiologie* (1874, p. 32). This method of blood corpuscle numeration is briefly as follows. The blood, sufficiently diluted by the admixture of a stated proportion of artificial serum, is introduced into an artificial capillary made of glass, of which the capacity is accurately known, and which is sufficiently fine to bear a microscopic examination with an object glass capable of defining the blood corpuscles. By means of this apparatus, the number of corpuscles, red and white, contained in a known bulk of diluted blood being ascertained, it is easy to calculate the number of corpuscles contained in the unit of measurement, say a cubic millimetre. The investigations of Malassez have already afforded very valuable contributions to our knowledge of the composition of the blood in man and animals, in health and disease; his method is now being applied by himself and others to the study of the action of drugs, and the article to which we now call attention is one of the first fruits of this application; the results thus obtained are highly interesting, not only as a contribution to our knowledge of physiological therapeutics, but from the point of view of utility in practice. It is always so gratifying to meet with experimental research in therapeutics which agrees with and corroborates the results of empiricism, and admits of practical application, that we propose to expose, with some detail, the conclusions arrived at by the author. His observations were made at the Midi Hospital, upon patients subjected to mercurial treatment. He investigated the state of the blood before, during and after specific treatment, examining in all 168 specimens of syphilitic blood, and every care was taken to avoid causes of error. He first determined the normal figures in healthy subjects taken under conditions similar to those in which his patients were placed; finally, he also studied the action of mercury upon animals, examining the blood before, during and after the administration of the drug. In healthy subjects, the number of blood disks averages about 4,600,000 to the cubic millimetre; it varies in different individuals between four and six millions, but in any one subject the number remains pretty constant, the variation due to meals and to excretion of fluid being only temporary.

In syphilitic subjects examined before the beginning of the specific treatment, the author found a progressive decrease of blood disks, amounting, generally, to more than 200,000 daily. As soon as the mercurial treatment (consisting of bichloride, two-thirds of a grain, or protoiodide, one and two-thirds grains) was instituted, the blood corpuscles began to increase in number at the daily rate of about 80,000

during the first week, and after that at the rate of 120,000 daily. This increase continued during two or three weeks only, and was then succeeded by a retrograde process of daily diminution, which, in about a fortnight, reduced the number of disks to the figure obtained at the beginning of the specific treatment. If the administration of mercury were then suspended, it was found that the destruction of corpuscles ceased, and about a week after the cessation of the mercurial treatment, the blood began to grow richer at the daily rate of about 90,000. As a general rule, the white corpuscles, of which Malassez and Wilbouchewitch find 1 to 600 or 700 disks, underwent variations inverse to those of the red corpuscles.

Thus we see that, before any specific treatment, syphilis causes a rapidly progressing anæmia; as soon as mercury is administered, the blood begins to grow rich in red blood corpuscles; this beneficial action is, however, of short duration, lasting only two or three weeks, and is succeeded by a daily decrease of red blood corpuscles, which is arrested by the cessation of the mercurial treatment. Our author therefore concludes that the administration of mercury *in excessive doses*, or *during too long a period*, gives rise to an anæmic condition; the drug, after having played the part of a hæmatopoietic reconstituent, exerts a destructive action on the blood disks, in consequence of its gradual accumulation in the system; after a temporary cessation of the specific treatment, the mercurial anæmia ceases to progress, and the corpuscles begin again to increase in number. Wilbouchewitch attributes this phenomenon to gradual elimination of the excess of mercury, by which the amount of the drug in the system is restored to the proportion favorable to hæmatopoiesis. This period of the action of mercury appears to be succeeded in turn by a phase in which the syphilitic anæmia sets in anew, and again indicates the necessity of having recourse to the reconstituant action of the specific treatment.

Experiments on rabbits showed that mercury constantly caused a diminution of blood corpuscles, which ceased when the administration of the drug was suspended.

In conclusion, Wilbouchewitch says:—"These experiments suffice to show that the progressive diminution of disks which I found to take place in syphilitic patients when the mercurial treatment had been carried beyond certain limits, was due to the action of the specific treatment. Mercury, given in large doses, begins at once to cause anæmia; if given continuously in small doses, the drug accumulates in the system, and soon acts as if given in excessive doses. The physician must, therefore, make it his aim to use mercury so as to utilize its hæmatopoietic action, and avoid its destructive effects; for this purpose, the information obtained by means of the counting apparatus of Malassez is very valuable."

Guided only by clinical experience, Fournier (*Gazette Hebdomadaire*, March 1, 1872; *La Syphilis chez la Femme*, Paris, 1873) has adopted what he calls the "method of successive treatments," which consists in frequently interrupting the administration of mercury for several weeks or months.

The Calibre of the Normal Urethra.—Otis (*New York Medical Journal*, April, 1874), states that the average urethral calibre equals at least number 30 of the French scale, and that the occurrence of urethræ from 30 to 36 would not prove rare if examinations were made

with suitable instruments; he also relates particulars of cases bearing out these assertions. He has now eight cases recorded of a urethral calibre of 34 (French), two of 36 and one of 40. It is common, he adds, to find a fully developed penis, with a meatus of 20 (French) or less, and on slitting it, to find a 30 or 31 steel sound slipping by its own weight through the urethra and into the bladder. This case, in which the calibre of the urethra proved to be 40 (French), originally presented a meatus contracted to 24. The meatus therefore cannot be taken as a reliable guide in estimating the normal calibre of the canal.

Urethrotomes for Strictures of large Calibre.—Bumstead (*Archives of Dermatology*, New York, Oct. 1, 1874) describes and figures instruments for the internal division of strictures of medium and large calibre. He has hitherto been in the habit of using Maisonneuve's urethrotome, but in some cases he thinks it may be convenient to use an instrument with a voluminous cylindrical shaft, capable of stretching the stricture, thereby facilitating its division. Such instruments as he describes are also, he says, more easy of introduction through wide strictures, especially when complicated by false passage, than are the finer urethrotomes, which are suitable for narrow strictures. He has therefore had made a set of four instruments whose shafts measure 15, 20, 25 and 30 (of the French scale), and which end respectively up to numbers 20, 25, 30 and 38. We must refer the reader to the original article and figures, for the description of the instruments which appear well devised for the object in view. It may be noticed that Bumstead herein agrees with Otis, that it may occasionally be necessary to resort to internal urethrotomy in cases when the canal admits a number 30 shaft.

External Urethrotomy.—Güterbock (*Archives für Klinische Chirurgie*, vol. xvi. 1874) has an interesting paper on the indications and performance of this operation, which he thinks should be resorted to at once in all cases of traumatic injury to the perineal urethra, as well as in many cases of narrow stricture complicated with false passages. He prefers to open the urethra in front of the lesion and incise from before rather than to open it at the apex of the prostate as advised by Simon and Cock. Following the practice of American surgeons, he disapproves of the tied-in catheter, except in cases where the urine is strongly ammoniacal; here the catheter may be tied in till the wound has granulated. Thirteen cases, seen in the wards of Wilms, are related; of these, six proved fatal from secondary hæmorrhage, showing the necessity of careful hæmostasis after this operation. Three days after the operation, it is generally advisable to introduce a large sized instrument, with a view to preventing contraction of the newly made canal; this measure should be repeated every two or three days. In some cases, however, no instrument should be passed through the urethra for several weeks.

Ammoniacal Urine and Urinary Fever.—Professor Gosselin and his interne, A. Robin, have published in the *Archives Générales de Médecine* (May and June, 1874), an elaborate essay on this subject. With a view to determining the causes of the feverish attacks which supervene in consequence of lesions of the urinary organs, they instituted a course of careful chemical researches and of experiments upon animals. Urinary fever has generally been explained by two theories,

neither of which suffices to account for all the phenomena involved in the problem. According to one theory the toxic phenomena are due to secondary alterations of the kidney, occasioning insufficiency of the organ to perform its excretory functions. According to the other, the poisoning of the system is due to resorption of altered urine from the surface of the wound, or from an inflamed and ulcerated mucous membrane. It is, however, an established fact which the authors took as their starting point, that operations on the urinary organs are particularly dangerous when the urine is ammoniacal. This condition of the urine gives rise to local and general disturbance of a most serious nature, consisting of feverish and inflammatory manifestations of a special kind. Our authors were consequently led to institute experiments and researches for the purpose of determining the nature and causation of these toxic phenomena, and of ascertaining the part played in their production by carbonate of ammonia.

The ammoniacal character of altered urine is known to be due to the decomposition of urea, which body, under certain circumstances, and by a mechanism but imperfectly understood, takes two equivalents of water, and becomes carbonate of ammonia. Pasteur and van Tieghem are of the opinion that this chemical reaction only takes place under the influence of certain vegetable ferments belonging to the torulæ, which have to be introduced into the urine from without. Many facts, however, militate against this theory. Be this as it may, the production of carbonate of ammonia from decomposed urea is a fact. What are the properties of this salt when absorbed into the system? The authors made many and various experiments upon guinea pigs and rabbits, by means of subcutaneous injections, employing watery solutions of the carbonate, normal urine, carbonate of ammonia dissolved in normal urine, ammoniacal urine, and lastly, carbonate of ammonia dissolved in ammoniacal urine.

1.—Action of carbonate of ammonia dissolved in water (25 centigrammes to 1 gramme):—The results varied according to the doses; when injected in one large dose (exceeding 1 gramme for a rabbit), tetanic convulsions took place, followed by death; among other concomitant phenomena, epistaxis and albuminuria were frequent; moreover, there was always a diminution of temperature amounting to 1°, 2° or 3°, Fahr. The lesions found after death were chiefly intense congestion of nearly all the viscera, including the kidneys; the blood was altered, being brownish in color, with deficient coagulation. If, on the other hand, the solution were injected in small daily repeated doses (50 centigrammes for a rabbit), the poison was well tolerated for two or three weeks, and the disturbances set up, the death of the animal and the appearance after death were all referable to the local inflammatory lesions occasioned by the injections. Thus in small and often repeated doses, carbonate of ammonia produces little or no general disturbance, but occasions destructive local effects; in large single doses it produces general phenomena differing wholly from those characteristic of urinary fever.

2.—Normal urine injected subcutaneously produced only local effects.

3.—The carbonate dissolved in normal urine was found to be actively poisonous to an unexpected degree, considering the results obtained in the two preceding sets of experiments. Injected in quite

small doses, this solution produced general feverish phenomena and intense local inflammation, soon followed by death. These effects were proportionate in intensity to the amount of carbonate of ammonia added to the urine.

4.—Ammoniacal urine derived from a patient with stricture and cystitis, was found to possess still greater poisoning qualities than the preceding solution. Injected in small doses, it occasioned a considerable and rapid rise of temperature, followed by defervescence and death. With the feverish attack following each injection, various other phenomena were noted, as diarrhœa and albuminuria.

5.—Finally, carbonate of ammonia dissolved in ammoniacal urine was found to greatly enhance the poisonous properties of the latter; the feverish attacks were followed by a fall of temperature below the normal degree, and by death. The deleterious effects were still more marked, and more rapid, when the wounds containing the injected fluid were exposed to the air.

From these experiments, our authors derive the following conclusions:

1. Ammoniacal urine rapidly causes fever, and by varying the modes of injection, the different thermic forms of urinary fever may be produced.

2. It is highly poisonous, and its toxic effects increase proportionately to the amount of carbonate of ammonia which it contains.

3. The local lesions experimentally produced explain analogous local lesions observed in man where wounds are in contact with ammoniacal urine.

4. The visceral lesions (congestion, &c.) agree with those found in subjects who have died of urinary fever.

5. The toxic action of ammoniacal urine is enhanced by the access of air.

6. The rapidity with which normal urine, mixed with blood and pus, undergoes decomposition in presence of air, explains how febrile accidents may ensue after operation upon the urinary organs, when the urine was acid before the operation. Gosselin and Robin recognize, however, that carbonate of ammonia is not the only factor in the toxic action of altered urine, inasmuch as the fatal dose of the carbonate, when dissolved in urine, is only from one tenth to one fifth of the fatal dose in watery solution. They see in urinary fever points of analogy with the phenomena of septicæmia. "Urinary fever, thus considered, would be a complex syndrome due to the combined action of chemical and of septic poisons." In this connection we would recall the designation "uriseptic fever," proposed by Dickinson, as a substitute for the many unsatisfactory terms hitherto in use.

The Treatment of Ammoniacal Cystisis by Benzoic Acid.—In a second paper (*Archives Générales de Médecine*, Nov., 1874), Gosselin and Robin advise the use of benzoic acid as a corrective to the ammoniacal state of the urine. The drug may be given dissolved in large quantities of water, or suspended in mucilage. The initial dose is 15 grains, but it should be rapidly increased to 45 or 60 grains, and may even be carried in some cases to 90 grains; at this dose, however, heat and dryness of the fauces begin to be complained of. The action of the acid upon the altered urine is not immediately recognized; but in seven or eight days the ammoniacal character and fœtidity gene-

rally disappears, and phosphatic deposits cease to form. The conclusions of this article are as follows:

1. The ammoniacal state of urine causing a large part of the accidents which follow operations on the urinary organs, it is desirable to diminish or suppress it that condition.

2. Benzoic acid, balsams which contain it, and probably other vegetable products (salicine, cinnamic acid, etc.), produce this result.

3. Hippuric acid, which is the product, acts in several ways:—*(a)* by forming hippurate of ammonia, which is less toxic than carbonate of ammonia.—*(b)* by retarding the decomposition of the urine, and consequently the production of the carbonate of ammonia.—*(c)* by preventing the formation of insoluble phosphatic deposits which are the cause of cystitis and the origin of calculus.

4. The administration of benzoic acid is advisable for patients suffering from ammoniaco-purulent cystitis, and particularly for those who are to undergo operations upon the urinary organs.

Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY. C. E. VAUGHAN, M.D., SECRETARY.

The Society held its semi-annual meeting at North Cambridge, Oct. 14, 1874.

Dr. S. W. Driver read the history of four cases of brain disease.

Case I.—R. L. M., car-driver, aged 28; single. General health and habits good. An otorrhœa of long standing had recently dried up. Left work on Sept. 15, 1870, on account of headache. On 16th, worse headache, and pain in back. On 17th, headache intense, frontal. Was chilly, dull in comprehending, and in expressing himself. Restless at night.

Sept. 18th.—Convulsions at 2, A.M. Seen at once, in second convulsion. Spasmodic action confined to left side. Pupils normal; pulse 80, regular. Convulsions frequent through day. Marked shock at first; rallying later. At night, pulse 80, irregular for first time.

Sept. 19th.—Reaction better. Convulsions less frequent during day. Pulse 85, more irregular. Respiration regular. Slight opisthotonos. Right side beginning to be affected. Left pupil most dilated.

Sept. 20th.—Convulsions every half hour, but ceasing after one drachm of bromide of potassium in divided doses. Consciousness and intelligence returned. Pulse 65; irregular.

Sept. 21st.—One convulsion last night. Has aura, or premonitory symptoms, at the usual times. Pupils dilated. Pulse 60; irregular. Temperature 99°. Tongue put out straight. Conscious. Spoke for first time, and put out hand. Sleepy for first time.

Sept. 22d.—Delirious at times; talkative; feverish. Says head feels heavy. Pulse 75, increasing to 85; pretty regular. Paralysis nearly gone; right side the weaker.

Sept. 23d.—No sleep. Pulse 120, irregular. Excited, suicidal. P.M.—Pulse 120. Micturition involuntary. Uses right side most. Intense pain in head. Opium administered, was followed by quiet and natural sleep.

Sept. 24th.—Awoke conscious and intelligent. No delirium. Pulse 90, irregular. Pupils a little dilated. Urine under control. More sleep. Awoke rational. Told time correctly by watch. Temperature a little higher. Opium not continued.

Sept. 25th.—Slept nearly all night, waking when spoken to. Calm and intelligent. Weak. Skin cool. Febrile reaction in evening.

Sept. 26th.—Sudden change. Respirations 40, irregular. Pulse 120; thready. Can be aroused. Pupils sensitive. Fœtid serous discharge from ear. P.M.—Rallied a little.

Sept. 27th.—Coma. Temperature 99°. Died on thirteenth day.

Autopsy.—Limited meningitis, with small deposit of lymph on anterior convexity of cerebrum, near fissure of Sylvius. Incision at this point opened an abscess of the size of a pullet's egg, with shreds of broken-down tissue hanging from the top. Wall about one fourth of an inch thick. No evidence of extension of the disease from the mastoid cells.

Case II.—Mrs. K., American, married, aged 51. Health low. Nervous. Had suffered from vertigo. On a hot day, August 8th, went out hurriedly, on account of an alarm of fire in neighborhood. Said her head was dizzy. Seen by Dr. Driver in ten minutes. Pale, cold. Head thrown back, gasping once in ten or fifteen seconds. Jaw moving with respiration. Pupils contracted. Heart sounds not to be made out. Pulse 130 to 140, irregular, thready. Deglutition very difficult. Thought right pupil did not respond to irritation as readily as left. Half an hour later, at her house, respiration 40, pulse 130; cold. Had moved all the limbs, and left bed and passed urine. Catheter used from this time. Lying on right side. Right lid perhaps a little drooping. 11, P.M.—Lids same. Respiration and pulse quicker.

Aug. 9th, 8, A.M.—Respiration 60. Pulse 160. Bluish in face and under nails. Cold. Right lid paralyzed. Right pupil dilated and insensible. On compressing lips, blowing from right corner. Worse during day. Used external heat, beef-tea and brandy enemata.

Aug. 10th, 1, A.M.—Reaction. Respiration 40; pulse 132. Right pupil responding slightly. Warm. Took a little nourishment.

Aug. 11th.—Respiration 32. Pulse 120. Reaction better.

Aug. 12th.—Respiration 24, pulse 114. Turned head when called, and reached for objects. Right pupil responding. Paralysis of lid. No muscular paralysis below face and muscles of deglutition, excepting that urine flowed slowly from catheter.

Aug. 13th.—Failed and died exhausted at 2 A.M. No murmur found in heart, at any time, or physical signs in lungs. During first thirty-six hours, heart sounds could not be made out. During first twelve hours, action of heart and lungs most affected; as paralysis developed, their action became quicker.

Autopsy.—Twenty-four hours after death. Calvarium thin; small quantity of coagulated blood in longitudinal sinus. Dura mater healthy. Pia mater irregularly discolored over left convexity, owing to blood in meshes of arachnoid; pale over right side. Coagulated blood in one of the larger arachnoidal veins, over posterior part of left hemisphere. Base healthy. Inferior lateral vein on left side filled with thrombus, dark, hard; evidently ante-mortem; extending into lateral sinus. Brain substance firm. In grey matter in anterior part of base of left hemisphere, also in that lying beneath left corpus striatum, extensive punctated hæmorrhage.

In pericardium, a moderate amount of fluid. Wall of right ventricle of heart, thinner than normal. In left ventricle several soft, flattened grey masses, irregularly granular on surface. The larger ones contained cavities with smooth walls, with moderate amount of yellow, viscid, puriform fluid. Projections from these passed among columnæ carneæ. Hypostatic engorgement of lower part of left lung. Upper part of right, œdematous.

Case III.—A. M. H., colored, aged 50. In good circumstances. Physique perfect. Seen Aug. 14th, with inflammation of middle ear; a perforation of tympanum; suffering. Went under care of specialists.

Seen again, Nov. 22d. Severe pain in ear relieved by subcutaneous injections of morphia. Anæmia, anorexia, low spirits.

Nov. 24th.—Better. Tenderness over mastoid. Sent to specialist.

Nov. 26th.—Remarkably well and in good spirits.

Nov. 27th.—3 A.M., vomited. Seen at 9. Pulse 60, regular. Respiration regular; tongue coated; nausea; no pain. Free discharge from ear.

Nov. 28th.—Better, but weak. Some pain in evening. Called in night; mad with pain in head. Feet cold. Pulse 60. Injected one-fourth of a grain of morphia subcutaneously. Slept.

Nov. 30th.—Dull pain when not under influence of opium. Pulse 60, rising. Disposed to be chilly. Dull.

Dec. 1st.—Not as well. Feet warm; sprawled out of bed. In night, a little wandering and twitching. Pulse 70. Bromides and subcutaneous injection of morphia, *pro re natâ*.

Dec. 2d.—Dull. Less twitching. Pulse 70, and quickened by rising. Could stand, unsteadily. Twitching increased. Right foot kicked out of bed. Delirious.

Dec. 3d.—A.M., mind clear, but misused words. Could see well, *at distance*. Pulse 76, regular. Right leg weak. Evening, pulse 100, irregular for first time.

Dec. 4th.—Seen by Dr. Wyman. Pulse 100, lying; 120, sitting; irregular. Sharp twitching. Kicking with right leg. Delirium. Could not stand. Less otorrhœa. Diagnosis: inflammation at base of brain; probably meningitis.

Dec. 5th.—Worse. Loss of sight. Soon, head was fixed to left, and eyes to right. Used left hand. Pulse 120, rising. Recognized no one.

Dec. 6th.—2 A.M. Pulse 120, rising to 160. Respiration 50, increasing. Died at 9 A.M.

Autopsy—Twenty-four hours after death, showed general meningitis. Deposit of lymph along course of vessels, extensively toward base; primarily in sheaths. Over petrous portion of left temporal bone, abscess, from carious perforation from mastoid cells, backward and upward.

Case IV.—V. S. S., American, aged 55. In good circumstances. Pleuro-pneumonia dating from a chill on January 23, 1874. Lung cleared well at top and middle. On 24th, pulse and temperature rose again, and signs of pleuritic effusion appeared, with infiltration of lung.

Feb. 3d.—Moderate muco-purulent expectoration began, increasing on 4th and 5th to a pint and a half in twenty-four hours. Signs improved; no cavity found.

On the 12th, patient began to flag.

Feb. 13th.—Chill twice, and vomiting, which continued until 18th; pulse rising to 134.

Feb. 19th.—Waking from sleep, symptoms of paralysis of right side appeared. Seen at 10 A.M. Mouth drawn to left; speech thick; tongue put out straight; right hand numb, and tactile sensation diminished; pupils alike. Mind clear, but sentences confused. Often used she for I, &c., and sometimes entirely irrelavent words. Pulse 120, rising. High toned fiddlestring murmur with first sound of heart, most distinct over aortic valves, and transmitted to top of sternum.

3 P.M. Worse. Sensible, but unable to pronounce more than the first words of a sentence.

9 P.M. Seen by Dr. Wyman. Pulse 156. Murmur, blowing and heard over larger space; up carotids and down abdominal aorta. Right hand and leg motionless. Right thumb turned in; wrist dropped.

Feb. 20th.—Rallied a little, but failed, and died on morning of 22d.

Autopsy.—By Dr. Fitz. His diagnostic summing up is as follows:—

Acute pachy-meningitis, and on left side, probably embolic. Old adhesive pleurisy, with recent circumscribed pleurisy. Hypostatic (desquamative) pneumonia. Enlarged spleen. Embolic nephritis. Fibromyomata, multiple, of uterus. Fatty degeneration of heart, with acute vegetative ulceration; aortic endocardatis.

Cardiac Dulness, its Extent and Significance.—From the formation and position of the heart, it is obvious that, though we can and may percuss out the whole of the cardiac dulness, this is quite unnecessary; it is only of importance to ascertain its greatest extent of dulness vertically and transversely. Increase of vertical dulness rarely indicates any alteration in the size of the heart itself, but is usually either due to hepatic enlargement, readily ascertained by an extension of these exploratory methods to the liver itself, or to pericardiac effusion—the former dulness, as a rule, extending below the sixth rib, the latter above the third; while a simple change of position of the heart, which may arise from various causes, is indicated by a transference of the normal dulness upwards or downwards, without any change in extent. The apex-beat, except in certain abnormal conditions, is, from the formation of the heart, the part which extends farthest to the left, and being, as a rule, perceptible to the touch, only requires to be percussed out in those exceptional circumstances where the apex beats beneath a rib, and not in an interspace. The right auricle is, of course, that part of the heart which exextends farthest to the right, and being extremely dilatable, and readily influenced by any obstacle to the onward flow of blood, transverse dulness about the level of the fourth rib comes to be an important indication of some obstacle to that onward flow, and therefore of an enlargement of the heart, chiefly in its auricular region. These, therefore, are the chief points in regard to which we look to important information from the percussion of the cardiac dulness:—Increase of dulness above the third rib indicates, as a rule, pericardiac effusion. Increase of the transverse dulness at the level of the fourth rib indicates obstruction to the circulation. If the apex-beat be displaced to the left and downwards, the obstruction is probably aortic, and has primarily influenced the left ventricle; if the apex-beat be not displaced downwards, the obstruction is either mitral or pulmonary in its origin.—"On Diagnosis of Diseases of the Heart," by Geo. W. Balfour, M.D.—*Edinburgh Medical Journal*, June, 1874.

Boston Medical and Surgical Journal.

Boston: Thursday, December 31, 1874.

With the issue of the present number, the connection of the undersigned with the Boston Medical and Surgical Journal ceases. The announcement of the sale and transfer of the work to other hands has already been made, and the present publishers congratulate its readers and patrons that it passes over to those who are so well qualified not only to maintain its long-established character and reputation, but to raise them still higher. They also take this opportunity to express their sincere thanks to the medical gentlemen of this city, still living, who from time to time, with small pecuniary compensation, have occupied the position of Editor of the Journal, and whose labors have mainly been instrumental in giving to it character and respectability. Among the list of the deceased who have filled this important post, it is interesting to find the honored name of the grandfather of the two by whom it is now so worthily occupied. The present Editorial managers are deserving of especial thanks, not only for their own labors, but for expenses incurred in securing the labors of others.

The connection of the Publishers with the subscribers to the Journal is one which has, in many instances, been of long continuance, and will remain indissolubly associated with many pleasant and interesting remembrances. An agreeable intercourse with many brother publishers, in the way of exchanges, is also now severed. Some of the periodicals thus received have come to the Journal office many years, and a vacancy will be felt on their withdrawal.

The senior partner has been connected with the Journal ever since it assumed its present shape and name, in 1828 ; and, previous to that, he was also engaged in printing the *Medical Intelligencer*, from its first issue, under the management of Dr. J. V. C. Smith, in 1823. Though changes have taken place in the work in this long course of years, it has always maintained the characteristic with which it started, that of a *weekly* Medical Journal—then an entire novelty in this country ; and its regular issue during these more than twenty-five hundred weeks has never been interrupted. It is gratifying now to realize that its frequent and continuous visits have been prized by its readers, and also that its general management has been such as to maintain its existence for a period far beyond the average age of medical periodicals, and with scarcely a rival in New England during the whole time.

Again commending the new managers and the present subscribers of the Journal to the favorable regards of each other, and hoping their mutual intercourse may be as pleasant and lasting as that which now comes to a close, the undersigned take their leave of the work as its proprietors and publishers. David Clapp & Son.

The Editors feel that it is but a slight mark of their respect to the members of the firm that so long has published this Journal, to offer

them the leading place in the last number that comes from their press. The farewell will be read with interest wherever the JOURNAL is known. The profession, not only of Boston and New England, but of the entire country, is greatly indebted to the publishers, and particularly to the senior partner, for having maintained a good medical journal for nearly half a century. Those of experience in such matters know how difficult, thankless and of little profit the labor must have been. The only reward is the conviction that the work has been neither fruitless nor unappreciated. Indeed, it is no small triumph to have seen the JOURNAL maintain its position among the very first, though in competition with others backed by the means and influence of some of the greatest publishing houses in America. It is thought that the time has come when the JOURNAL should profit by similar advantages; but whatever success may be in store for it, neither the public nor the Editors will forget that the foundation was laid by those who to-day take their leave.

WE regret exceedingly that we are obliged, for want of room, to postpone to another occasion such extended notice of the recent communication made to the City Council by the Board of Health, touching the matter of the city sewerage, as the importance of the communication demands. We shall embrace an early opportunity, however, to notice it at length, and meanwhile commend it to the thoughtful attention of all who are interested in the sanitary welfare of the city.

PERNICIOUS PROGRESSIVE ANÆMIA.—Under this title, states the *Medical Times and Gazette*, Nov. 21, 1874, Dr. Biermer, of Zurich, has described an affection which differs from ordinary simple anæmia in a marked manner, and which seems to be a disease *sui generis*. In five years, he has met with fifteen cases of it in patients varying from eighteen to fifty-two years of age; the majority being women. It frequently followed chronic diarrhœa, and child-bearing seemed especially to predispose to it. The symptoms were extreme pallor, a swollen look of the skin of the hands, feet and face, weakness, giddiness and palpitation of the heart, loss of appetite and a feeling of pressure in the epigastrium. Transient diarrhœa and attacks of feverishness, without the fever assuming any particular type, also occurred. Marked anæmic murmurs were sometimes present, but no organic disease of the heart was ever detected *post mortem*. With all the symptoms of failing health, no actual diminution of the fat covering the body could be made out. Ecchymoses in the retina, small petechiæ under the skin, and, at times, hæmorrhage from the nose and kidneys took place. Transient paralyses were probably due to small hæmorrhages into the brain-substance. Towards the end of life, dropsy sometimes set in and delirium also occurred. The course of the disease was chronic and the termination fatal. The necropsy invariably showed a partial fatty degeneration of the papillary muscles of the heart, and fatty degeneration of the small bloodvessels of various organs. No treatment has as yet been of any avail. Biermer's observations have been confirmed by Professor Immermann, of Basle, who insists on certain diagnostic points which distinguish the affection from diseases in which poverty of the blood is a prominent feature. It differs from chlorosis in its steady and

uninterrupted development, and from marasmus of other kinds in the retention of the fat which covers the body. It has a superficial resemblance to albuminuria, but in pernicious anæmia the urine either contains no albumen or only a trace. The absence of enlargement of the spleen and lymphatic glands separates it from leucocythæmia, and the absence of pigmentation of the skin distinguishes it from Addison's disease. From the fact that all the early cases which were observed occurred in the neighborhood of Basle and Zurich, it was assumed that there must be some local cause for the affection, but of late, cases have been observed elsewhere.

Neuromata cured by Section of a Nerve-trunk.—Professor Kosinski, of Warsaw, has cured a case of multiple neuromata by division of a nerve-trunk.

The patient, aged 30 years, presented himself on account of painful, knotty tumors, which were small and painless when he first noticed them, but which afterwards became increased in size and painful while he was performing long military marches. The tumors were on the upper and outer surfaces of the thigh and over part of the buttock; they were round or oval in shape, and varying in size from a pin's head to a hazel-nut. To determine their nature, one of the most painful was removed, and a microscopic examination showed it to consist of gray nerve-fibres mixed with fibrous tissue, indicating the probable origin in the cutaneous extremity of a nerve, obviously, from their situation, the small sciatic and external cutaneous.

After trying all sorts of medication without success, Professor Kosinski determined to excise a piece of the nerve, with the view of rendering the tumors painless, but without any expectation of diminishing their size. By an oblique incision, almost in the direction of the gluteal fold, the small sciatic nerve was reached, and a portion of it, an inch long, was removed as far as possible under the edge of the gluteus maximus. The immediate effect of the operation was the loss of sensibility in the tumors themselves, as well as in the whole region occupied by them. A few, however, on the anterior and outer parts of the thigh and in the sciatic region had their sensibility only partially destroyed. Whilst the wound was granulating, they began to diminish in size, so that at the end of a few weeks the larger ones had been reduced by a half and the smaller ones had almost completely disappeared. At the end of four months, it was ascertained that the process of disappearance was still going on, and that those which remained had become completely painless.—*Medical Times and Gazette*, Nov. 24, 1874.

Aphorisms from the *Medicinisch-Chirurgische Rundschau.—Whooping Cough.* "Whenever I observe a patient affected with a catarrh, accompanied by fifteen or twenty paroxysms of coughing in a minute, and particularly when this catarrh continues from four, six, eight to ten days, being attended with severe fever, I regard these symptoms as sufficient to justify the diagnosis of a specific catarrh (whooping cough).

"The initiatory fever of a bronchial catarrh seldom continues longer than forty-eight to seventy-two hours, except when capillary bronchitis is superadded. In children affected with whooping cough, the fever usually lasts, on the contrary, from seven to fourteen days.

"Whenever, in the course of a whooping cough, the number of paroxysms exceeds forty in twenty-four hours, the condition of the patient is to be regarded as critical. If it exceeds sixty, the physician is justified in predicting an unfavorable termination to the disease.

"Whooping cough lasts, as a rule, between fifty and sixty days; in exceptional cases, eight days only or less. On the other hand, it is frequently prolonged to a period of several months, and even to an entire year.

"In the case of pregnant women suffering from whooping cough, an abortion appears to be induced in rare instances only.

"The longer and severer the last paroxysm in whooping cough, the sooner the next attack.

"Whooping cough, above all other bronchial affections, has a tendency to develop latent tuberculosis; and, for this reason, in the case of children belonging to tuberculous families, is to be regarded as a very dangerous disease.—TROUSSEAU, *from the German Translation of Culman.*

RECOVERY FROM MELANCHOLIA AFTER FOUR YEARS' REFUSAL OF FOOD.—A gentleman, aged forty, after increasing symptoms of mental depression, fell into a profound state of melancholia in June, 1870, and was sent to a private asylum, where he lay for four years in a complete state of inertness, rarely using a muscle voluntarily, except to clench his jaws when the attempt was made to feed him, and to close his eyelids and turn up the globes, when efforts were made to examine his eyes. During this entire period he would not speak or eat, and was forcibly fed, dressed and cared for; and although life was sustained, he became very much reduced. In May last, he suddenly woke up, as it were, into social life, spoke, ate, and although scarcely able to move at first, rapidly regained health, weight, and complete mental soundness. Asked to explain his behavior, he said that he was under a profound sense of personal degradation. He felt that he was growing into a kind of monster, unfit to live or even to be seen; that the birds on the trees were mocking at him, and that he was surrounded by devils.—*British Medical Journal*, Nov. 28, 1874.

IT is proposed, at the University of Cambridge, to institute an examination specially designed for those intending to hold public appointments as officers of health. The following are recommended as subjects of examination:—

"1. Physics and chemistry; the principles of chemistry and methods of analysis, with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat, and the principles of pneumatics, hydrostatics and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general. 2. Laws relating to public health. 3. Sanitary statistics. 4. Origin, propagation, pathology and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and disposal of sewage and refuse; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season and climate."—*British Medical, Journal*, Dec. 5.

THE ADMINISTRATION OF APERIENTS AFTER OPERATIONS ON THE RECTUM.—In operations on the rectum, the practice hitherto has been to confine the bowels, by means of opium and a carefully restricted diet, for at least a week. To this practice may often be ascribed the failure to obtain adhesion by first intention, or breaking down of the adhesions the very first time the bowels are relieved. It has been recently proved that a regular daily evacuation of the bowels, by means of small doses of castor oil or some gentle saline aperient, favors the healing process, lessens the tendency to unhealthy inflammation and consequent non-union of the parts, and obviates the risk of the adhesions breaking down by the passage of the hardened mass of fæces that had been allowed to accumulate in the rectum, or by the distension of the bowel by an enema administered by a careless nurse.—*British Medical Journal*, Dec. 5.

FREQUENCY OF RESPIRATION IN CHILDREN.—In new-born children, the frequency of respiration ranges from 23 to 44 a minute; between the ages of 1 and 4 it varies from 20 to 36, and in older children from 20 to 28.—Dr. A. MONTI, *Obst. Jahrb. f. Pad.*

Correspondence.

The Pomeroy Case.

Messrs. Editors,—Now the case is decided, I wish to make a few comments on Commonwealth *vs.* Jesse H. Pomeroy. I have not seen this boy, and have little sympathy, sentimental or otherwise, with so debased and defective a specimen of humanity. It is of little consequence, in one sense, whether he is hung at once in deference to public opinion, as expressed in the daily and medical press of Boston, or confined for life in a prison or hospital. It *is* of much importance that such exceptional beings should be properly classified.

The physician asks himself, in view of the well-known catalogue of this boy's atrocities, have we a morbid specimen, a case of disease before us, or do all these deeds of fiendish aspect merely show us a phase of healthy, normal boy nature? The press speak of the actor as a fiend, a brute, a moral monster rather than a human being, but inconsistently term the acts of such an actor crimes. In the last Journal, you say that the boy's *tastes* were *morbid*, that he had a *taste* for cruelty, exaggerated in degree, but not unnatural in kind; that the temptation to commit the crimes was great (growing out of his morbid taste for cruelty), that his power to resist was feeble (defective will power), but that *there is no reason to doubt that it was sufficient.* That is just the question. *Was* it sufficient? Dr. Tyler and Dr. Walker, after personal examination of the prisoner, thought there *was* reason to doubt, and that the prisoner should have the benefit of that doubt. It was Dr. Walker, by the way, who suggested the possibility of masked epilepsy, and not Dr. Tyler, as you have it. Dr. Choate, although he believed the prisoner sane, thought he had a peculiar proneness to certain forms of sin, with weakness to resist, and that his peculiarities were moral and not intellectual.

It is conceded by all, then, that moral deficiency, weakness of will and fair intellect are the characteristics of this boy's mind. The evidence also went to show that his peculiarities were congenital rather than acquired, shown in early childhood, but developing with horrible force and effect at puberty. This condition is not a very uncommon one, and is known among alienists as *moral idiocy*, in distinction from intellectual deficiency. I made brief mention of three cases of this kind, in the Journal for Sept. 24, 1868, and have met with several since, though none where the results were as startling as in the present case. The collateral evidence, aside from certain specific acts, is sometimes strong and sometimes weak; but with or without these side lights, it is not difficult to distinguish a moral idiot from the ordinary "bad boy." To show this difference plainly and convincingly is quite another thing.

Exception is quite generally taken to regarding the atrocity of the offence as an evidence of insanity or moral deficiency. Why not consider the nature of the act in question, and, if you choose, that alone, as proving or disproving insanity? How do physicians diagnosticate chorea, for instance? They see certain motiveless, incoördinate acts, largely at variance with ordinary muscular movements. The patient says he cannot control them. A patient talks incoherently, and we call him delirious. He persists in styling himself Emperor of China, for instance, and we call him insane. He appears depressed, aud says he has suicidal or homicidal impulses. We call him insane and dangerous, and send him to an asylum. We call a boy, who from birth has been unable to talk, or to learn to read, or to exercise any useful employment, an idiot. If he kills a comrade, we do not hang him, because he is intellectually deficient.

But boys are born morally deficient, while developing a fair amount of intellectual power. They are incapable of receiving and assimilating ideas touching their moral relations. Their feelings are abnormal and perverted,

selfish indifference taking the place of natural affections; and cruelty, with other bad passions, having unrestrained sway, in spite of good training, and as the direct result of congenital moral deficiency. This condition is recognized by all alienists in cases where popular feeling can have no influence. The evidence is the same in this as in other diseases. We observe a moral deficiency and incapability for the assimilation of moral ideas, with vicious, perverse, cruel and violent conduct, acts of crime, such as theft, incendiarism, torture and murder, more or less motiveless in the ordinary sense, and plainly growing out of natural defect rather than an ordinary yielding to temptation. This character is evident at an early age, and is especially demonstrative at puberty, coming under more or less restraint as the patient arrives at adult age. No punishment or reward, no instruction or restraint of religious teaching has any effect. The patient, like Pomeroy, simply says, "I couldn't help it," or "I had to do it." The greater the number and atrocity of his acts, the earlier their appearance, the feebler the apparent motive, the more readily do we concede a condition of partial or more perfect moral idiocy.

We know a moral monster just as we do a physical one, when we see him; only men are not trained to trust their observation of mental phenomena as they do their visual organs. The difficulty in classifying the Pomeroy case is, not that experts have a theory of insanity which they cannot sustain, but that the public and the jury have a theory that moral atrocity indicates wilful depravity in all cases, when unaccompanied by intellectual defect or disease. They say, by their verdict, this boy *knew* what he was doing, and that it was wrong; but did he *feel* the outrageous nature of his conduct at the time, and could he at the time restrain his horrible impulses? When we merely read of his tortures we shudder, and we unconsciously assume in him the same standard of feeling. But it was the congenital absence, it may be, of this moral sense which we possess that enabled him deliberately to tie up little boys and girls and to strip and torture them, in two instances, to death. It is evident he felt no compunctions when he danced round one of his mangled victims, forcing him to repeat the Lord's prayer, mingled with obscenity; and it is evident that he has felt no remorse since.

If society chooses to consider such conduct as the outcome of a sound mind, under modern educational influences, merely a fair specimen of what we can do hereabout in the natural depravity line, so much the worse for society. If society persists in hanging this premium "bad boy," instead of trying the experiment of cultivating a moral sense in such barren soil, so much the worse for the boy. T. W. Fisher.

Boston, Dec. 24, 1874.

American Medical Association.—A Correction.

Messrs. Editors,—Will you permit an old Fellow to "kindly correct" an error, into which your correspondent and yourselves inadvertently seem to have fallen, in regard to "the power to choose" delegates to the American Medical Association?

When the Massachusetts Medical Society was requested to join in the establishment of that Association, it gave up the whole matter at once to its *Councillors.* After investigation, and an assurance that the Association "did not assume any power of coërcion," the *Councillors* consented to send delegates. The delegates were then, and for years afterwards, chosen by the *Councillors.* When it became difficult and burdensome to make the selection, the *Councillors*, on motion of Dr. Henry I. Bowditch, voted to "*authorize* the District Societies to appoint delegates," to be "entitled delegates of the Massachusetts Medical Society," not of the District Societies. There was nothing whatever "advisory" in all this.

The "power to choose," thus derived directly from the Councillors, has never been revoked, though suspended for *one year only*—1871; and District

Societies can now, as in years past, choose delegates for the coming year, if they think it worth while.

More might be added, but enough has been advanced to show where the *power* lies. The purpose, duties, limitations and privileges of District Societies are clearly set forth in the Charter (Digest, articles xii. to xv.) now in the hands of every Fellow of the society. COUNCILLOR.

Medical Miscellany.

AT THE LAST MEETING of the Middlesex South District Medical Society, resolutions were passed in memory of the late Prof. Jeffries Wyman and Drs. Anson P. Hooker and Theodore P. Robinson.

DR. E. WARREN SAWYER, a graduate of the Harvard Medical School, has obtained the position of Lecturer on Obstetrics at the Rush Medical College, Chicago, after a competitive examination with thirteen others. Each candidate was called on to deliver an extemporaneous lecture on a given subject before the faculty and students.

BEDBUGS are said to be most readily destroyed by *nux vomica* in the form of the tincture, combined with liquor ammoniæ, which mixture is to be freely applied to the joints and cracks of the bedstead. It is equally efficacious against cockroaches, water-bugs and other vermin, and if applied to the harness of horses, the animals will be no longer annoyed by flies.—*Apotheker-Zeitung.*

THE EDITOR of *The Richmond and Louisville Medical Journal* and the *American Medical Weekly* proposes to give to each subscriber to the first journal, twelve handsomely engraved portraits of distinguished European and American physicians, and to the subscribers to the *Weekly*, one of these portraits in each of the two volumes for 1875. We are glad that the affairs of our esteemed contemporaries are in such a flourishing condition as this should imply.

PASSAGE OF SCISSORS THROUGH THE ABDOMINAL WALLS.—At a recent meeting of the New York Pathological Society, Dr. H. B. Sands presented a pair of scissors, five inches long, which had been swallowed by a woman affected with suicidal mania. The scissors had subsequently appeared at the abdominal wall, just above the umbilicus and to the right of the median line, and, by unfastening the rivet, first one blade and then the other was successfully removed.—*New York Medical Journal.*

CATHETER IMPACTED IN THE FEMALE PELVIS.—At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Barwell reported the case of a female whom he found suffering from a large abscess over the hip, with a sinus in front of the anus, all of which seemed to have originated in an instrumental abortion produced upon her twenty months previous. A subsequent examination, made after the abscess had been evacuated, revealed the presence of a gum-elastic catheter, lying up between the uterus and bowel. A small opening was detected communicating with the rectum, through which the catheter was forced, and then drawn out at the rectum.—*Lyon Médical.*

NOVEL USE OF THE ASPIRATOR.—Dr. A. Bell, of Newcastle-upon-Tyne, has recently employed the aspirator successfully in a case of retroversion of the gravid uterus. The patient was between four and five months advanced, had suffered extremely, and was greatly prostrated. The source of her trouble having been ascertained, a careful and determined effort was made to replace the uterus, but without success. It then occurred to Dr. Bell to draw off the liquor amnii through the rectum by the aspirator. No unfavorable symptoms followed the operation; upon the next day uterine action set in, and the woman was safely delivered.—*British Medical Journal*, December 5.

TREATMENT OF PERSISTENT NEURALGIA.—Amongst the many remedies that have been tried for rebellious neuralgias, M. Desnos, of the Hôpital de la Pitié, recommends the following combination as being frequently successful; and even in cases where it has failed, if tried again after the lapse of a short time, it may succeed. He first applies over the painful spot three or four mustard poultices, and then rubs into the reddened surface a liniment composed of—

Oil of hyoscyanum,	℥iss.;
Laudanum,	℥ss.;
Chloroform,	℥iss. M.

—*Journal de Médecine; The Practitioner.*

BOOKS AND PAMPHLETS RECEIVED.

The Medico-Chirurgical Tariffs used by the Shropshire Ethical Branch of the British Medical Association. 1874. Pp. 12.

Free Phosphorus in Medicine; with special Reference to its Use in Neuralgia. By J. Ashburton Thompson. London: H. K. Lewis. 1874. Pp. 275.

Contributions to the Annals of Medical Progress and Medical Education in the United States, before and during the War of Independence. By Joseph M. Toner, M.D. Washington: Government Printing Office. 1874. Pp. 118.

The seventy-eighth Annual Report of the Boston Dispensary. 1874. Pp. 26.

Report of the Health Officer of San Francisco. Henry Gibbons, Jr., M.D. 1874. Pp. 71.

Catalogue of the Specimens in the Pathological Museum of the Philadelphia Hospital. Prepared by James Tyson, M.D., assisted by R. M. Bertolet, M.D. Philadelphia. 1874. Pp. 21.

Petition of the American Medical Association in behalf of the Medical Corps of the Army. Washington, 1874. Pp. 24.

An Address delivered before the McDowell Medical Society of Kentucky, Nov. 4, 1874. By Wm. T. Briggs, M.D., of Nashville. Pp. 15.

Annual Report of the Surgeon-General of the United States Army. 1874. Pp. 21.

Clinical Ureametry. By Henry G. Piffard, M.D. (From the New York Medical Journal, December, 1874.) New York. Pp. 7.

MORTALITY IN MASSACHUSETTS.—*Deaths in thirteen Cities and Towns for the week ending December* 19, 1874.

Boston, 170; Worcester, 13; Lowell, 18; Milford, 1; Chelsea, 3; Cambridge, 14; Salem, 7; Lawrence, 8; Springfield, 8; Lynn, 8; Taunton, 4; Newburyport, 4; Fall River, 12. Total, 270.

Prevalent Diseases.—Consumption, 51; pneumonia, 27; measles, 15; croup, 9; diphtheria, 4. Boston reports 8 deaths from croup and 4 from diphtheria.

CHAS. F. FOLSOM, M.D.
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 27, 158. Males, 77; females, 81. Accident, 2; apoplexy, 5; inflammation of the bowels, 1; bronchitis, 8; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 4; cancer, 5; cholera infantum, 1; consumption, 24; convulsions, 2; croup, 3; debility, 1; diarrhœa, 1; dropsy, 1; dropsy of the brain, 2; dysentery, 1; diphtheria, 5; epilepsy, 1; erysipelas, 1; scarlet fever, 8; typhoid fever, 4; gangrene, 2 gastritis, 3; disease of the heart, 7; intussusception, 1; insanity, 1; disease of the kidneys, 5; diseases of the liver, 2; congestion of the lungs, 2; inflammation of the lungs, 16; marasmus, 5; measles, 3; old age, 7; paralysis, 2; pleurisy, 2; premature birth, 6; peritonitis, 2; puerperal disease, 3; suicide, 2; syphilis, 1; tumor, 1; whooping cough, 1; unknown, 2.

Under 5 years of age, 57; between 5 and 20 years, 14; between 20 and 40 years, 34; between 40 and 60 years, 19; over 60 years, 34. Born in the United States, 109; Ireland 36; other places, 13.